



ioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
door unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided and

Большая библиотека технической документации
<http://splitoff.ru/tehn-doc.html>
каталоги, инструкции, сервисные мануалы, схемы.



The air conditioners manufactured by Daikin Industries have received **ISO 9000 series** certification for quality assurance.

Certificate Number .
(ISO9001) **JMI-0107** (ISO9002) **JQA-1452**
JQA-0495



The airconditioning factories of Daikin Industries have received environmental management system standard **ISO 14001**

Shiga Plant
Certificate Number. EC99J2044
Sakai Plant
Certificate Number. JQA-E80009
Yodogawa Plant
Certificate Number. EC99J2057

Dealer

DAIKIN INDUSTRIES, LTD.

Head Office:
Umeda Center Bldg., 4-12, Nakazaki-Nishi
2-chome, Kita-ku, Osaka, 530-8323 Japan

Tokyo Office:
Shinjuku Sumitomo Bldg., 6-1, Nishi-Shinjuku
2-chome, Shinjuku-ku, Tokyo, 163-0235 Japan

<http://www.daikin.com/global/>

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•The specifications, designs, and information in this brochure are subject to change without notice.



PCV0320

New

*Quieter, Smaller, Sleeker, Simpler:
The **VRV II** is now four times better.
Even earth friendly with a higher COP.*

VRV II SYSTEM

THE INTELLIGENT AIR CONDITIONING SYSTEM



OZONE FRIENDLY SERIES

INVERTER HEAT PUMP TYPE 50 Hz

INVERTER HEAT RECOVERY TYPE 50 Hz



The **VRV II** is now four times better.
Even earth friendly with a higher COP.

VRV II—a compilation of cutting-edge technologies derived from a Customer First policy

Daikin has put comprehensive cutting-edge technologies into the VRV II, derived from its Customer First policy and 20 years of experience with the VRV system.

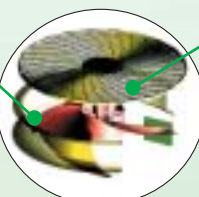
The results are *quieter* operation, *smaller* units, *sleeker* design, and *simpler* installation and maintenance, with less impact on the environment with higher COP.

New Aero fitting grille and aero spiral fan

These new features achieve a low noise fan with a large airflow, and realize a compact casing together with the compressor linking technology.

Aero spiral fan

Bending of the fan blade edge reduces turbulence, resulting in less pressure loss.



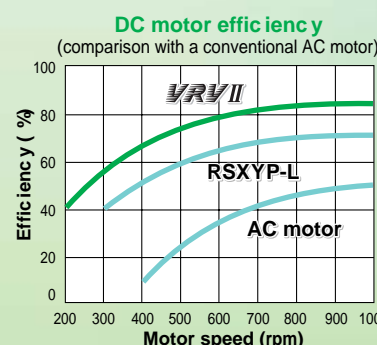
Aero fitting grille

New shape promotes a spiral discharge airflow, resulting in reduced pressure loss.

First DC fan motor

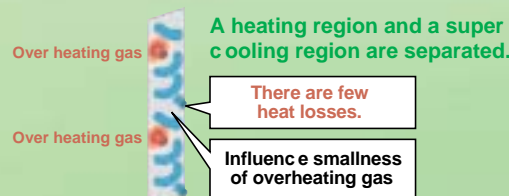
- First use across entire range of models (from 5 to 48 HP).
- Efficiency improvement by 40% especially in low speed.

DC fan motor structure



New e-Pass heat exchanger

To optimize the path of heat exchanger.



New SSe-bridge Circuit

The new sub-cool feature prevents the flushing of liquid refrigerant from long piping due to the effects of SSe-bridge. This can reduce the refrigerant volume required in piping and thereby enable a reduction in piping size.

New Compact aero box

Realizes a compact casing by stacking the Inverter and control pcbs plus optimizing the internal design to suit airflow speed. This achieves lower noise and reduces the power required by the large-diameter fanned outdoor unit.

New Smooth sine wave DC Inverter

By adoption of the Sine Wave which smoothes rotation of a motor, operation efficiency has improved sharply.

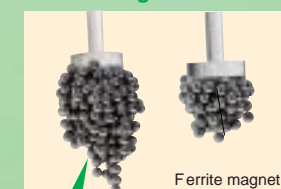
Sine Wave DC inverter



New Reluctance DC scroll compressor

High torque and efficiency is attained by employing neodymium magnets. Achieves 70% reduction in volume.

Secret to raising energy-efficiency! Powerful magnets



Neodymium magnet is much more powerful than the widely used ferrite magnets.



R410A...

a refrigerant with "ZERO" ozone layer-depleting coefficient and no chlorine.

R410A is a new mixed refrigerant that exhibits superior safety characteristics. Even with a zero coefficient of ozone layer depletion, R410A offers a better performance to the conventional R22.

VRV II marks a significant advance over VRV.

The new VRV II is a significantly improved version of the original VRV, which revolutionized building air conditioning. The latest in air conditioning technologies are applied to fulfill all the needs of our customers. The VRV II opens the door to the future of air conditioning.

No.1 Energy saving

New ■ Highest COP available during both cooling and heating operation

Top-class Energy Savings

COP for cooling operation	VRV II RXYQ8MY1B	3.21
	VRV II RXYQ20MY1B	3.10
COP for heating operation	VRV II RXYQ8MY1B	3.56
	VRV II RXYQ20MY1B	3.40

Value represents that to be achieved by a single outdoor unit.

What is COP?
COP (Coefficient of Performance) indicates energy consumption efficiency. A higher COP means less electricity used, resulting in greater energy efficiency.

$$COP = \frac{\text{Capacity (kW)}}{\text{Power consumption (kW)}}$$

Wide range of indoor units 10 series, 63 models

Type	Model	Capacity Range			
		20 (0.8 HP)	25 (1 HP)	32 (1.25 HP)	40 (1.6 HP)
Ceiling mounted cassette (Double flow)		FXCQ20MVE	FXCQ25MVE	FXCQ32MVE	FXCQ40MVE
Ceiling mounted cassette (Multi flow) super cassette			FXFQ25MVE	FXFQ32MVE	FXFQ40MVE
600 x 600 multi flow ceiling mounted cassette	New	FXZQ20MVE	FXZQ25MVE	FXZQ32MVE	FXZQ40MVE
Ceiling mounted cassette corner			FXKQ25MVE	FXKQ32MVE	FXKQ40MVE
Ceiling mounted built-in		FXSQ20MVE	FXSQ25MVE	FXSQ32MVE	FXSQ40MVE
Ceiling mounted duct					FXMQ40MVE
Ceiling suspended				FXHQ32MVE	
Wall mounted		FXAQ20MVE	FXAQ25MVE	FXAQ32MVE	FXAQ40MVE New
Floor standing		FXLQ20MVE	FXLQ25MVE	FXLQ32MVE	FXLQ40MVE
Concealed floor standing		FXNQ20MVE	FXNQ25MVE	FXNQ32MVE	FXNQ40MVE

No.1 Wide range

New ■ A maximum 48 HP with built-in flexibility

This level of power is a quantum leap over the previous 30 HP, taking Daikin into the top rank of the industry. The number of modules has been standardized from nine to six and the number of casings from four to three, streamlining the design process to offer enhanced flexibility.

5 HP	8, 10 HP	12, 14, 16 HP	18, 20 HP	22, 24, 26 HP	28, 30, 32 HP
RXYQ5MY1B	RXYQ8MY1B RXYQ10MY1B	RXYQ12MY1B RXYQ14MY1B RXYQ16MY1B	RXYQ18MY1B RXYQ20MY1B	RXYQ22MY1B RXYQ24MY1B RXYQ26MY1B	RXYQ28MY1B RXYQ30MY1B RXYQ32MY1B
Heat Pump Type					
	REYQ8MY1B REYQ10MY1B	REYQ12MY1B REYQ14MY1B REYQ16MY1B	REYQ18MY1B REYQ20MY1B	REYQ22MY1B REYQ24MY1B REYQ26MY1B	REYQ28MY1B REYQ30MY1B REYQ32MY1B
Heat Recovery Type					

New ■ 2 HP increments

By providing a range of horse power levels in 2 HP increments*1, Daikin responds exactly to customer needs.

* 1.Except for 5 HP

34, 36 HP	38, 40, 42 HP	44, 46, 48 HP
RXYQ34MY1B RXYQ36MY1B	RXYQ38MY1B RXYQ40MY1B RXYQ42MY1B	RXYQ44MY1B RXYQ46MY1B RXYQ48MY1B
REYQ34MY1B REYQ36MY1B	REYQ38MY1B REYQ40MY1B REYQ42MY1B	REYQ44MY1B REYQ46MY1B REYQ48MY1B

● Refer to p.37 for combination details.

New ■ Indoor units

A wide range of indoor units includes 10 types and 63 models, so the needs of all customers can be precisely met.

Capacity Range						
50 (2 HP)	63 (2.5 HP)	80 (3.2 HP)	100 (4 HP)	125 (5 HP)	200 (8 HP)	250 (10 HP)
FXCQ50MVE	FXCQ63MVE	FXCQ80MVE		FXCQ125MVE		
FXFQ50MVE	FXFQ63MVE	FXFQ80MVE	FXFQ100MVE	FXFQ125MVE		
FXZQ50MVE						
	FXKQ63MVE					
FXSQ50MVE	FXSQ63MVE	FXSQ80MVE	FXSQ100MVE	FXSQ125MVE		
FXMQ50MVE	FXMQ63MVE	FXMQ80MVE	FXMQ100MVE	FXMQ125MVE	FXMQ200MVE	FXMQ200MVE
	FXHQ63MVE		FXHQ100MVE			
FXAQ50MVE New	FXAQ63MVE New					
FXLQ50MVE	FXLQ63MVE					
FXNQ50MVE	FXNQ63MVE					

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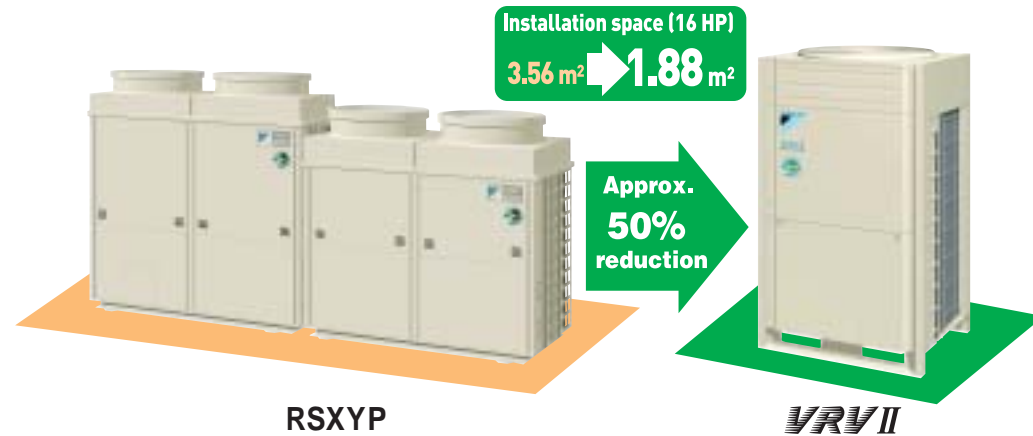
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No.1 Flexible design

New ■ An incredible 50 %*1 reduction in installation space

The VRV II has drastically reduced the installation space required, making it the most space saving system in the industry.

* 1. At 16 HP



New ■ Neat appearance on the roof

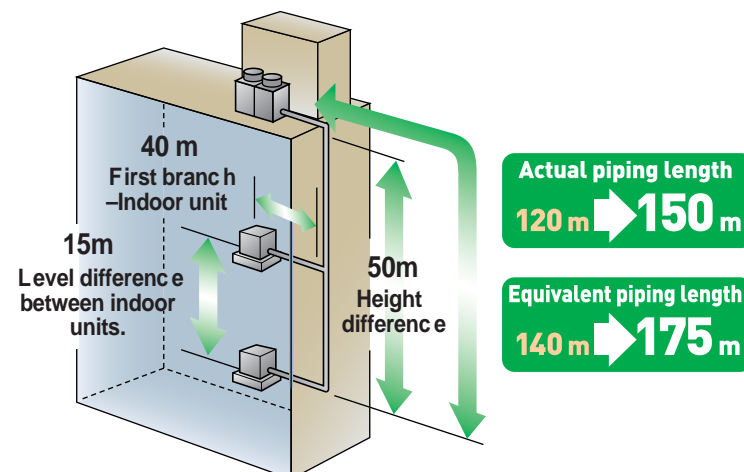
All units have the same height, adding to neat appearance. All piping can be installed below the units.



New ■ Piping length extended to 150 m*2

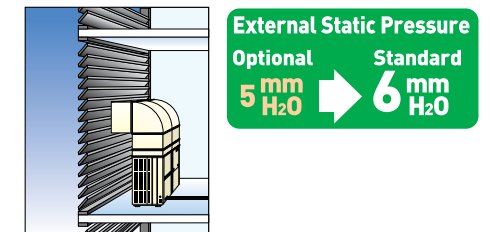
Industry's longest* actual piping length of 150 m provides even more flexibility during installation.

* 2. Total piping length is 300 m
* 3. As of October, 2002



New ■ High external static pressure 6 mm H₂O

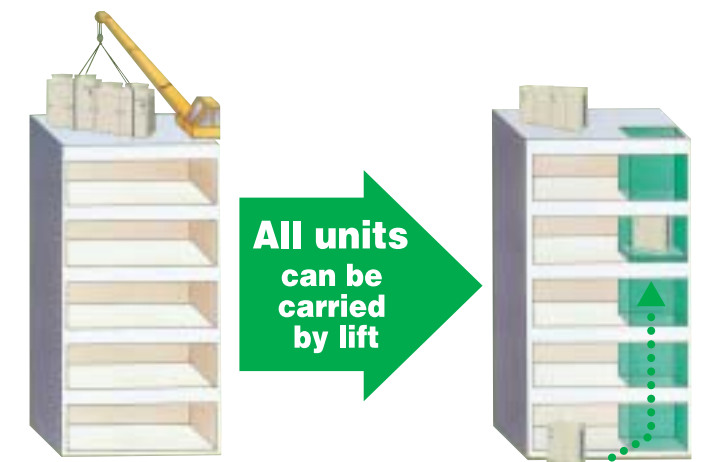
Daikin now offers 6 mm H₂O external static pressure specification as standard (previously 5 mm H₂O as an option) to meet the requirements of veranda installation.



No.1 Easy installation

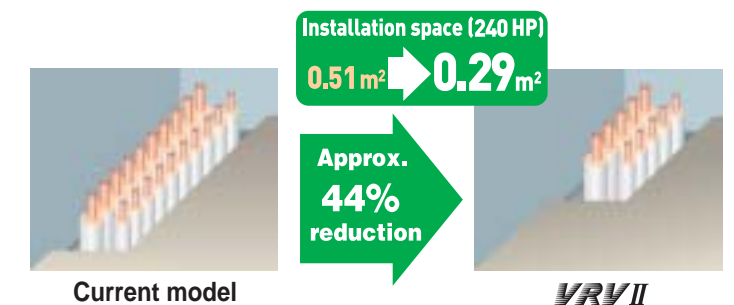
New ■ Transportation by Lift

All units can be transported by lift. This makes installation dramatically easy, and effectively reduces time and labor.



New ■ Fewer pipes

VRV II requires fewer pipes and therefore less room for piping than VRV, resulting in a reduction in piping work and significant space saving.



No.1 High reliability

New ■ Double backup operation in compressors and units

If one of the three compressors in an outdoor unit malfunctions, one of the other compressors takes over emergency operation. Furthermore, if one outdoor unit malfunctions in a system of more than 18 HP, other outdoor units provide emergency operation until repair is effected.

If one compressor malfunctions...



Emergency operation occurs.

If one outdoor unit malfunctions...



Emergency operation occurs.



Can be easily started by remote control of the indoor unit.

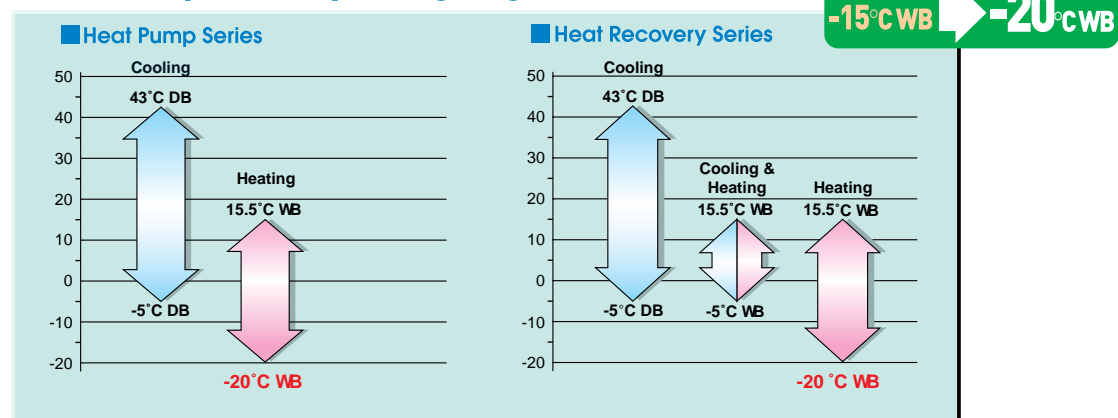
New ■ Duty cycling of compressor

The VRV II employs a system that balances the usage of each compressor in order to prolong itself and their stability. This duty cycling function covers a maximum of nine compressors. It switches starting sequence of multiple outdoor units.

New ■ Extended operating range

By employing a high-pressure dome-type compressor, the operating range in heating has been extended from -15°C to -20°C.

Outdoor temperature operating range



No.1 Quiet operation

New ■ Nighttime quiet operation function

2 modes*1 with low operating sound level at night.

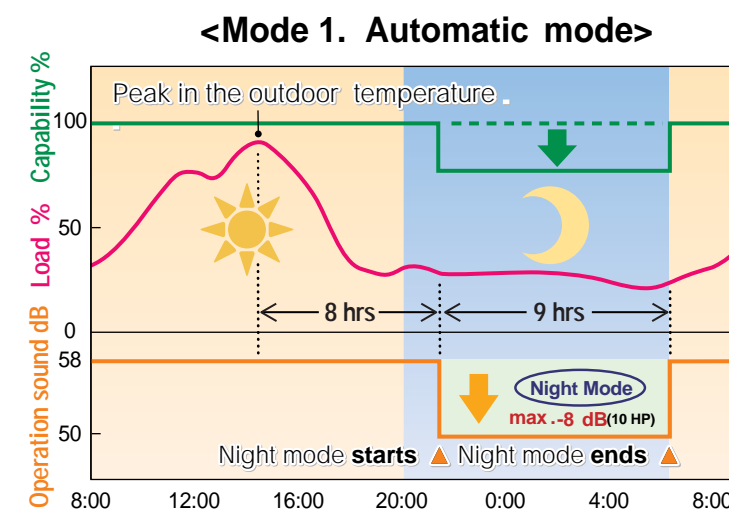
Mode 1. Automatic mode

Set on the outdoor PCB. Time of maximum temperature is memorized. The low operating mode will become active 8 hours*2 after the peak temperature in the daytime, and operation will return to normal 9 hours*3 after that.

Mode 2. Customized mode

Starting time and ending time can be input. (External control adaptor for outdoor unit, DTA104A61 or DTA104A62, and a subsequently obtained timer are necessary.)

- * 1. Determine which mode to select depending on the climatic characteristics of each country.
- * 2. Initial setting. Can be selected from 6, 8 and 10 hours.
- * 3. Initial setting. Can be selected from 8, 9 and 10 hours.



Note: • This function is available in setting at site.
• The relationship of outdoor temperature (load) and time shown in the graph is just an example.

No.1 Environmental friendly

New ■ Uses HFC R410A with zero ozone depletion potential

New ■ Reduced refrigerant volume

VRV II uses less refrigerant than VRV and hence has less environmental impact.

New ■ Lead free PC boards

VRV II uses PC boards with no lead, making it even friendlier to earth.

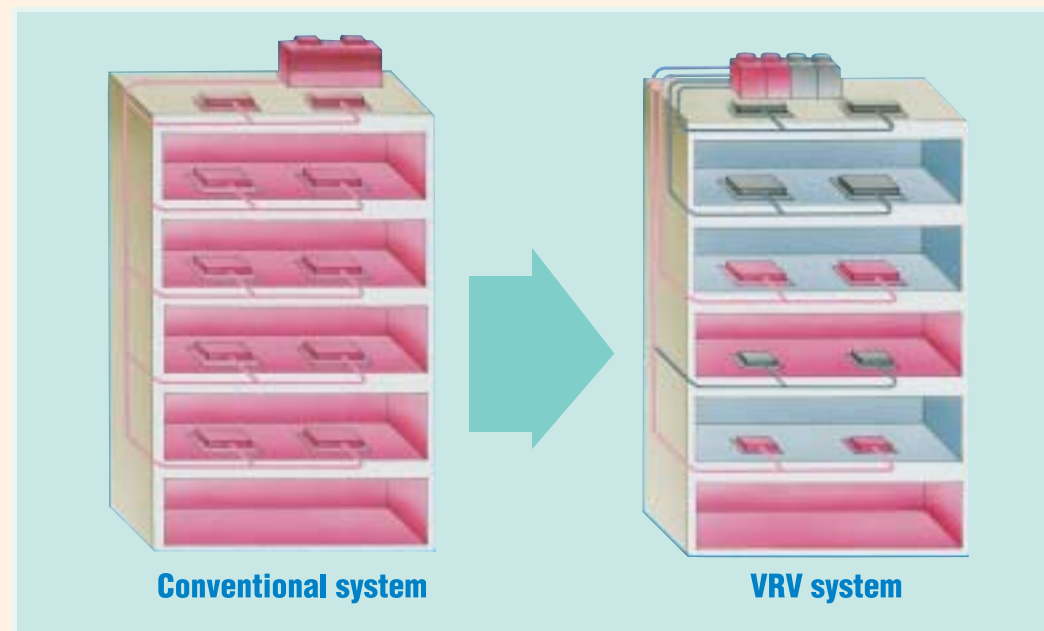
New ■ Easily recycled casing

Galbarium, a material that requires no coating, is used for the bottom plate for easy recycling.

What are the advantages of a *VRV* system over central air conditioning systems?

Individual control

Conventional systems air condition a building as a whole, whereas the VRV system air conditions each room individually. Hence it is ideal for the constantly changing occupancy of a typical building. Even further, precise level control is possible that reacts to the exact conditions in each room. Individual control promotes a far more economic and efficient system.



Other advantages

Saves energy

- The heat recovery system supports separate heating and cooling in different rooms, making the system ideal for the constantly changing occupancy of a typical building.
- Using the HRV for ventilation dramatically boosts energy efficiency.

Conserves space

- Space efficiency is enhanced by the compact size of the individual units, the long maximum piping length, and the ability to realize a large-scale air conditioning system with a single piping circuit.

Offers a wide selection of models

- Lineup of heat pump types is 5 to 48 HP, and heat recovery types is 8 to 48 HP, both in 2 HP increments*. Indoor units consist of 10 types with a total of 63 models. This wide selection of models makes it possible to build a system that perfectly suits the customer's requirements.

* Except for 5 HP

Operates over a broad temperature range

- The lower end of the operating temperature range in heating has been extended from -15°C to -20°C .

Provides superior design flexibility

- The extended maximum piping length gives more flexibility when designing the system.
- New compressor technology eliminates the need for piping calculations, which shortens the time needed for design.
- Layout changes can be made easily because the capacity of the indoor units can be up to 130% that of the outdoor units.
- Outdoor units can be placed on the roof where they have no effect on the design of the building interior.

Enhances ease of use

- Units are designed to operate quietly, and are also equipped with a function for silent operation especially at night.
- The controller is easy to operate and has many useful functions. Units can be controlled in each individual room.

Delivers ultimate reliability

- The self-diagnostic system identifies problems within the system quickly and accurately.
- The Auto Restart function ensures that operation is restored with the previous settings even if the power has been shut off.
- Units are controlled in each individual room, so local malfunctions does not cause the entire system to shut down.

Simplifies installation

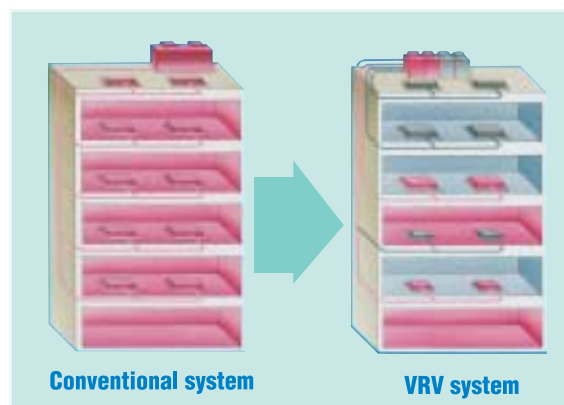
- The lightweight, compact units can be transported using a regular lift.
- The pipes are few in number, making layout simpler.
- Units can be installed on each floor.
- Inspection after installation is straightforward.

How does the VRV system benefit property owners?

The DAIKIN VRV system offers low running costs, considerable savings in both energy and space, and high reliability. The innovative inverter technology ensures sufficient air conditioning in every stage of operation.

Comfortable and Economical

- Because each room is controlled individually, only those rooms requiring air conditioning are cooled or heated. In addition, thanks to inverter technology, the level of air conditioning can be precisely controlled depending on the condition of each room. High COP is achieved by employing cutting-edge technology, contributing to smooth and economical operation.



Heat Recovery Series

- The VRV II series includes a Heat Recovery type, which allows simultaneous cooling and heating operation within the same refrigerant circuit, conserving even more energy by recovering the heat generated by the cooling operation and using it for heating.

HRV (Heat Reclaim Ventilation)

- The VRV system can be interlocked with Daikin's energy-saving HRV ventilation system. The HRV system exchanges heat between the supplied air and exhausted air in order to recover the heat energy contained in the exhausted air, thus allowing ventilation without increasing the load on the air conditioning system. Operating the HRV system interlocked with the air conditioning system further improves the efficiency of air conditioning.

Adapts Easily to Any Floor Plan

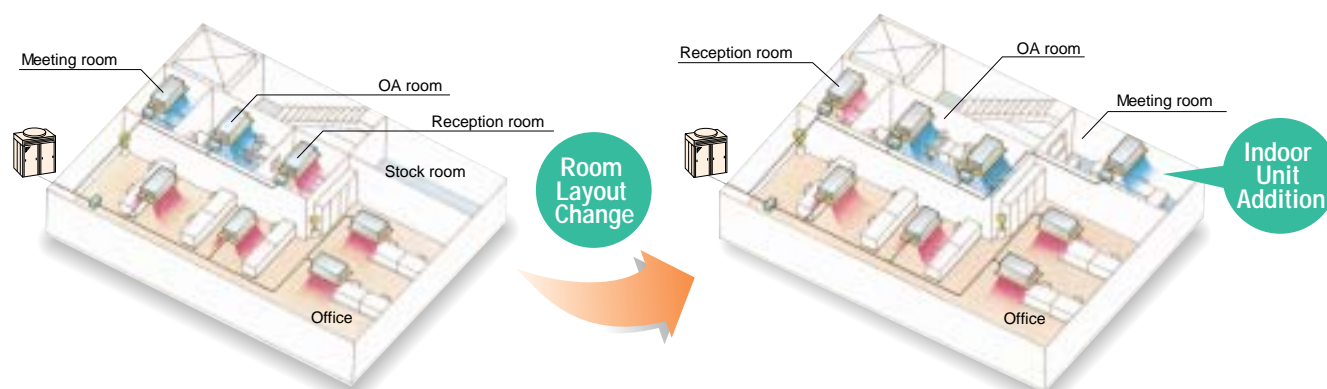
- We offer a wide lineup of outdoor and indoor units to meet the needs of building size and interior design.

- The length of refrigerant piping places very few restrictions on design, thus allowing for greater flexibility in planning.

Adapts Easily to Layout Changes

- Indoor units can be added up to 130% of the capacity of the outdoor unit to readily accommodate changes in floor layout. The heat recovery series in particular automatically selects cooling or heating

- in each room, according to the relationship between set temperature and heat load, thus eliminating restriction on room usage.



Short Installation Time

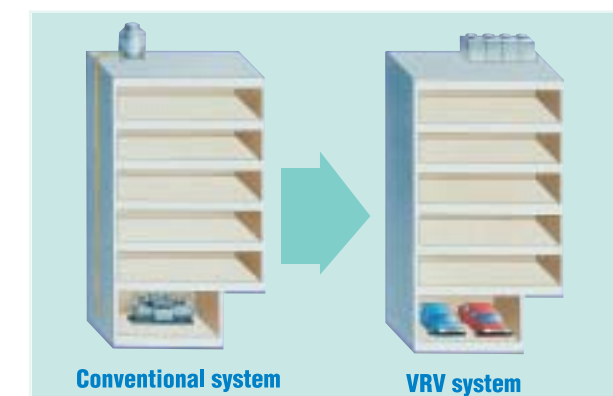
- The Super Wring system and REFNET Piping system greatly simplify wiring and piping work, which, in turn, reduces installation time and cost. Installation by each floor is possible as necessary.

Central Control System

- The complete lineup of central control units facilitates building large-scale, high-level central control systems that are easy to operate and control.

Efficient Space Utilization

- The VRV system can be used to develop a large-scale air conditioning system on a single refrigerant piping circuit, thus reducing the space required for air conditioning equipment. Because the difference in height between the indoor unit and the outdoor unit can be as large as 50 meters, even with a 15-story building all of the outdoor units can be placed on the rooftop for more efficient utilization of space.



High Reliability

- Conventional VAV systems or systems comprising a fan coil and chiller require an expensive, bulky standby system to prevent air conditioning in the entire building from being stopped when there is a problem in the system. The VRV system air-conditions each room individually, allowing any possible problems affect only the

immediate system and not to require that all air conditioning be stopped. If an outdoor unit compressor malfunctions, another compressor takes over emergency operation. If an outdoor unit malfunctions in an over 18 HP system, another outdoor unit provides emergency operation until repair.

- The VRV II system can duty cycle up to nine compressors to balance compressor usage for longevity and stability. Multiple outdoor units are switched with different starting sequences.

- By employing a high-pressure dome-type compressor, the operating range of heating has been extended from -15°C to -20°C .

Low Operating Sound at Night

- The nighttime quiet operation function reduces sound levels at night under two modes: Automatic—stores maximum temperature and activates quiet operation automatically 8 hours later; and Customized—sets start and end times manually.



What are the advantages for consultant and design offices?

Daikin's VRV systems include indoor and outdoor units available in a wide variety of models for all sizes of buildings and installation conditions. Long refrigerant piping lengths and other features put few restrictions on design for greater flexibility in meeting the needs of the building.

Offers a wide selection of models

- Lineup of heat pump types is 5 to 48 HP, and heat recovery types is 8 to 48 HP, both in 2 HP increments*. Indoor units consist of 10 types with a total of 63 models. This wide selection of models

makes it possible to build a system that perfectly suits the customer's requirements.

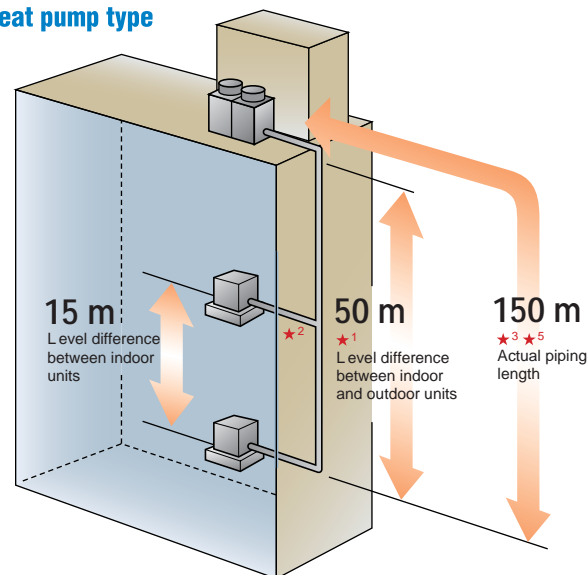
* Except for 5 HP

Long Piping Design

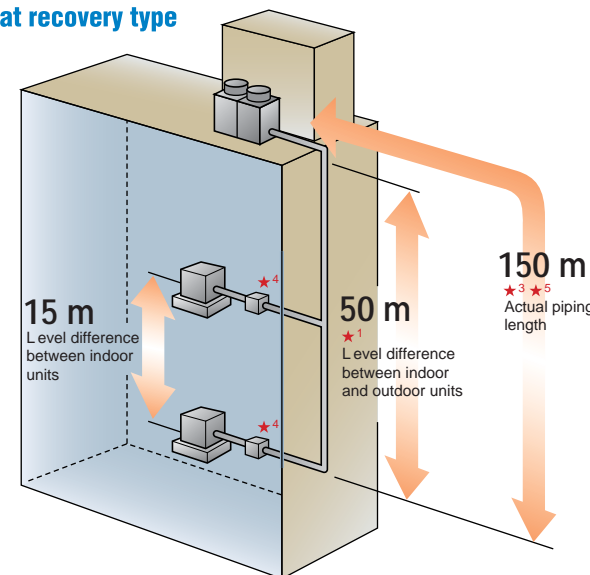
- The refrigerant piping length between the indoor unit and outdoor unit in one system can extend up to 150 meters and the difference in height can be as great as 50 meters. These generous allowances make it possible to put all the outdoor

units on the rooftop in a 15-story building. The difference in height between indoor units in the same system can be as much as 15 meters, thus making it possible to cover four or five stories with a single system.

Heat pump type



Heat recovery type



*1 This value is based on the case where the outdoor unit is located above the indoor unit. If the outdoor unit is located underneath the indoor unit the level difference is a maximum of 40m.

*2 The maximum actual piping length between the indoor unit and the first branch is 40 m.

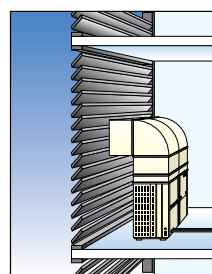
*3 Equivalent pipe length between outdoor and indoor units ≤ 175 m

*4 The BS unit can be located anywhere between the indoor unit and outdoor unit, if installing after the first branch (REFNET JOINT or HEADER), the piping limit is less than 40m.

*5 Total piping length ≤ 300 m

Can Be Installed for Each Floor

- Since the external hydrostatic pressure of the outdoor unit fan motor is 6 mm H₂O, an outdoor unit can be placed on each floor using short-discharge ductwork.



Systems Requiring a Mix of Cooling and Heating Can Be Easily Designed

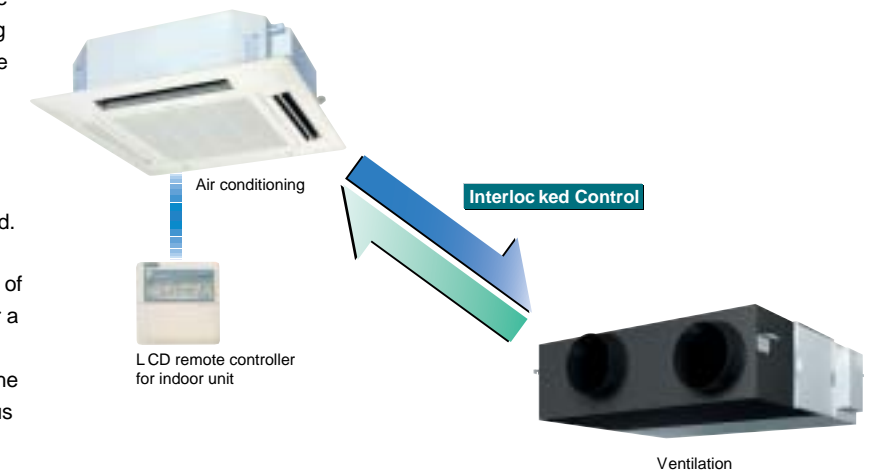
- When cooling and heating must be simultaneously performed in the same building, until now a 4-pipe fan coil system had to be

used. The VRV system Heat Recovery Series, however, satisfies these needs with ease of design and installation.

Air Refreshing Treatment (Heat Rec claim Ventilation: HRV)

- The HRV system exchanges heat between the supplied air and exhausted air in order to bring the outside air closer to the indoor temperature and humidity conditions, thus allowing ventilation without increasing the cooling and heating load. And it can save not only running cost but also initial air conditioning system's cost because the smaller ones can be selected.

- The HRV system interlocks with the operation of the VRV system, thus eliminating the need for a dedicated HRV remote controller and simplifying installation and wiring operation. The central control unit is common to the VRV, thus helping achieve the total control and management of air conditioning and ventilation.



Lightweight Outdoor Units

- Lightweight outdoor units featuring minimized vibrations do not require floor reinforcement as do conventional systems.

Short Design Times

- In conventional systems that use water, the size of the pipes had to be calculated depending on the amount of water used. In the VRV system, however, Daikin's advanced compressor technology eliminates the need for time-consuming piping calculations and greatly reduces design time.

Wide Range of Control Systems

- Using regular wired or wireless remote controllers, various control systems can be achieved including double remote control, group control of up to 16 units and interlocked control with HRV.

- By flexibly combining the central controller, on/off controller and schedule timer, a versatile central control system can be easily constructed to control up to 128 indoor units.

- Intelligent touch Controller is a simplified but highly advanced central control air conditioning management system that gives complete control of your air conditioning equipment.

- Our large-scale air conditioning management system consists of the intelligent Manager ECO 21, which allows BMS* -level monitoring and control simply using a personal computer, or the BACnet Gateway / DMS-IF (for LONWORKS®), which connects air conditioning system to a BMS to perform monitoring and control.

* BMS: Building Management System

* LONWORKS® is a registered trade mark of Echelon Corporation.

* Refer to pages 23 and 24 for details about Advanced Controllers.

How do installers benefit from the VRV system?

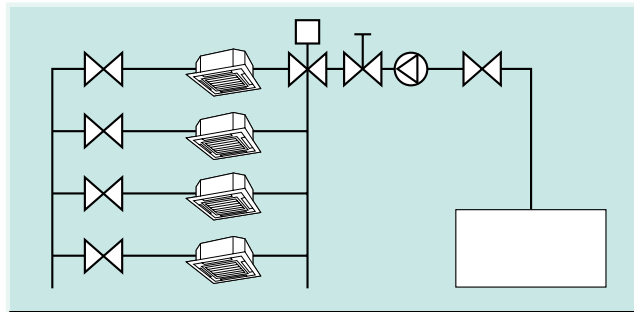
Unique piping and wiring systems and lightweight, compact indoor units make it possible for just a few people to install a VRV system quickly and easily. The Auto Address Setting function and the Auto Check function for piping and wiring errors allow anyone with just the ability to install regular direct expansion type air conditioning equipment to perform a highly reliable installation.

Reduced Piping and Cost

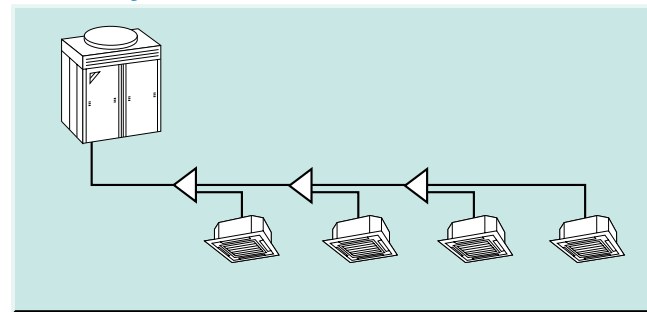
Daikin's advanced REFNET piping system makes installation easy. Only two* main refrigerant lines are required in one system, and the strainers, stop valves, two-way and three-way valves, used in conventional water piping systems are not required. Thanks to the REFNET piping system and electronic expansion

valves, imbalances in refrigerant flow between units is greatly reduced even though small-diameter piping is used. The small-diameter piping is also easy to handle and requires less piping shaft space. (* Three in the case of heat recovery type.)

Water Chiller System



VRV system



REFNET Piping Kits

The REFNET Joint and REFNET Header (both optional) reduce the amount of work involved in installation and increases the reliability of the system.

REFNET Joint



ATTACHED INSULATORS for REFNET Joint



REFNET Header

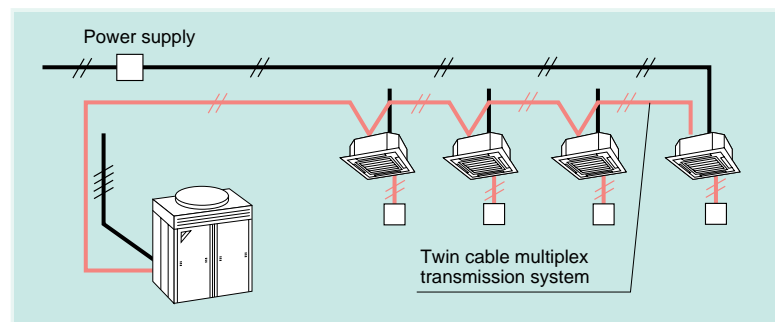


for REFNET Header



Simple Wiring

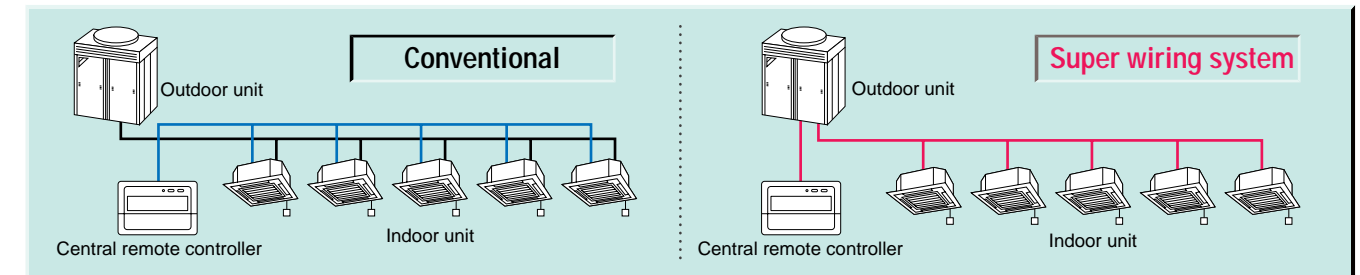
Two-wire multiplex transmission system makes it possible to connect multiple indoor units to one outdoor unit with one 2-core wire, thus simplifying the wiring operation.



Super Wiring System

A Super Wiring system is used to enable the shared use of the wiring between indoor and outdoor units and the central control wiring. A high-level central control system can be achieved via a

relatively simple wiring operation. Even when retrofitting with a central control system, all that is required is to connect the central control unit to the outdoor units.



Auto Address Setting Function

The address of each indoor unit is set automatically at the same time they are connected, thus eliminating the need to manually set each address. Address setting for central control can be performed easily from the remote controller of an indoor unit.

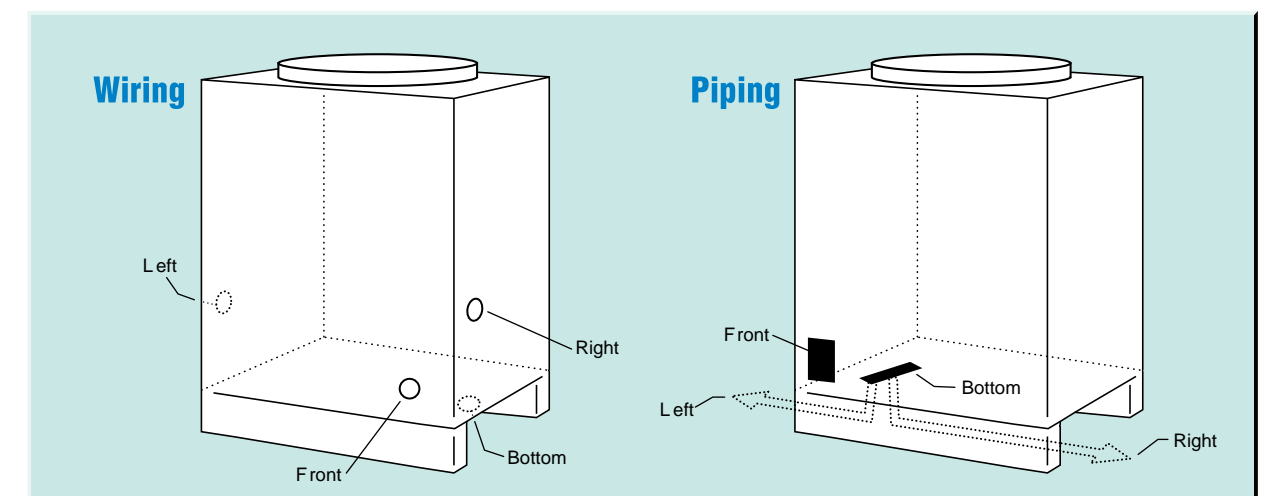
Sequential Starting

By employing DIII-net, systems on the same power line will be started sequentially. This holds down the starting current, allowing the capacities of breakers to remain small (possible up to 100 HP).

Four-Way Wiring and Piping Connection

Wiring can be fed from the front panel, both left and right side panels or bottom panel of the outdoor unit. Piping can be fed from 4 directions, front, both left and right or bottom of the outdoor unit.

These features increase installation flexibility, minimizing the space required for installation and simplifying maintenance of the wiring and piping.



Note: Refer to engineering data for details of the exterior design of the outdoor unit and the locations of connection points for piping and wiring.

Check Function for Connection Errors of Wiring and Piping

Mistakes in piping or wiring in the system can be checked via lamps on the printed circuit board of the outdoor unit.

What are the advantages for users?

Self-Diagnosis Function for Efficient Servicing and Maintenance

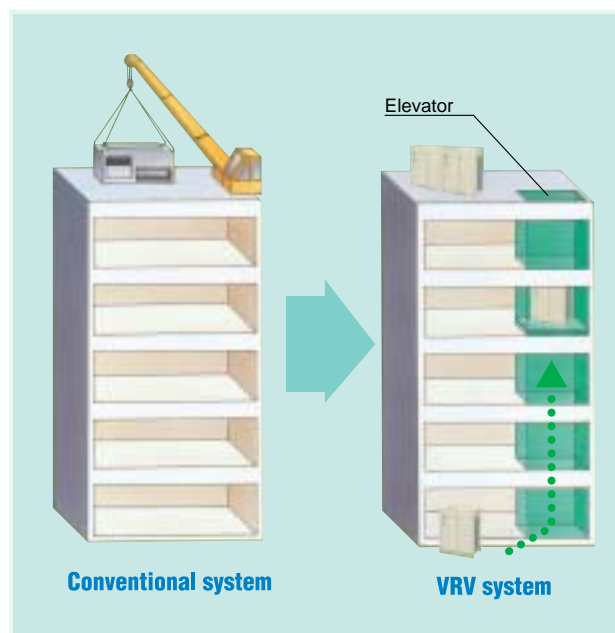
- The self-diagnosis function detects malfunctions in major locations in the system and displays the type of malfunction and location. This allows servicing and maintenance to be performed more efficiently.

Self diagnostic examples

Operation lamp	Inspection display	Unit No.	Malfunction code	Nature of malfunction
Blinking	Blinking	Blinking	A1	Indoor unit : Print circuit board error
Blinking	Blinking	Blinking	A9	Indoor unit: Electronic expansion valve drive unit (YIE) error
Blinking	Blinking	Blinking	U4	Transmission error : Indoor unit ↔ Outdoor BS unit ; Outdoor unit ↔ BS unit

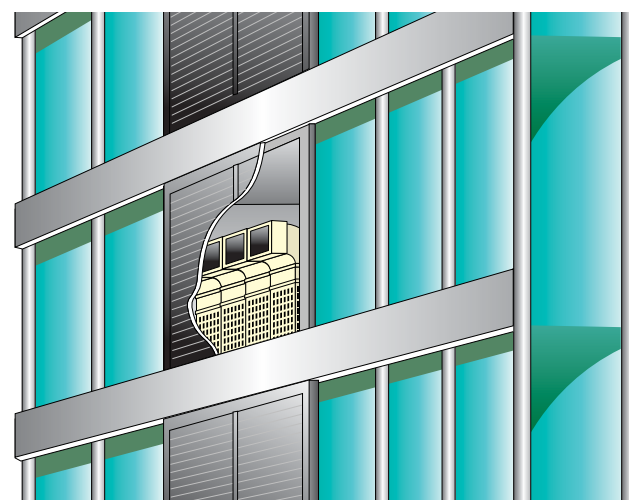
Light weight, Compact Units

- Indoor units are so lightweight and compact that they can be installed in any ceiling space. Outdoor units do not require special cranes or conveyors to move them. They can even be hauled in a building elevator.



Installation by Floor

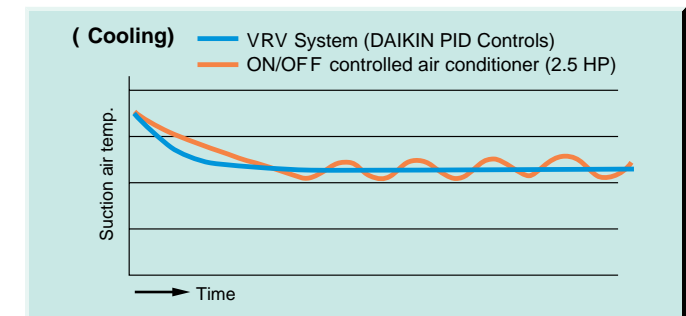
- If necessary, installation can be performed by floor. The installers do not have to wait until the entire system is installed in the building to test the system in each section.



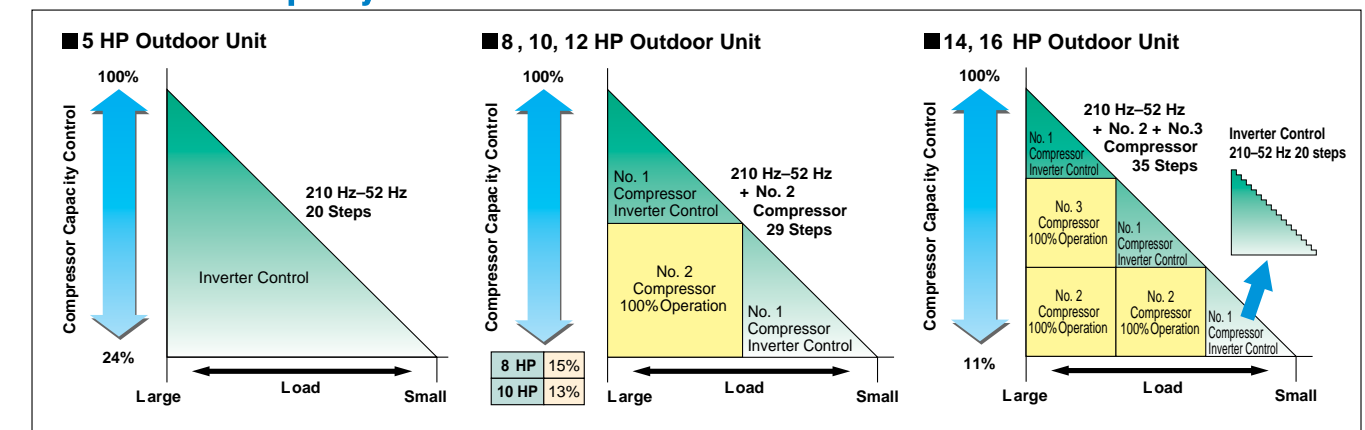
The VRV system is an advanced system that offers convenience and comfort for end users.

Precise Room Temperature Control

- Electronic expansion valves respond to changes in load in indoor units and continually control the flow rate of refrigerant. In this way, the VRV system maintains a nearly constant room temperature without the typical temperature changes that occur with a conventional ON/OFF control system. The extremely refined PID control maintains the room temperature within $\pm 0.5^{\circ}\text{C}$ of the set temperature.



Inverter-driven capacity control



Automatic Cooling and Heating Switching

- The difference between the set temperature and actual room temperature is detected and the cooling or heating mode is automatically switched over.

Auto Swing

- Whether it be a ceiling-mounted cassette (double-flow/multi-flow/600 x 600 multi-flow) type, ceiling-mounted cassette corner type, ceiling-suspended type or wall-mounted type, all these indoor units have an Auto Swing mechanism that helps keep the room temperature uniform.

Low Operating Sound Design

- All indoor units have a low operating sound design.

LCD Remote Controller

- The remote controller uses an easy-to-read liquid crystal display for easy operation. A full line of wired and wireless controllers is available for the indoor units of all types.

Auto Restart Function

- Even if there is an extended power failure, the VRV system will automatically restart operation. A power failure will not cause any settings to be lost, thus eliminating the need for re-programming.

Control systems

Individual Control Systems

Wired remote controller (Optional)



Wired remote controller

- Large liquid crystal screen displays complete operating status.
- Digital display lets you set temperature in 1°C units.
- Lets you individually program by timer the respective times for operation start and stop within a maximum of 72 hours.
- Equipped with a thermostat sensor in the remote controller that makes possible more comfortable room temperature control.
- Monitors room temperature and preset temperature by microcomputer, and can select cool/heat operation mode automatically. (VRV System Heat Recovery series only)
- Enables you to select cool/heat/fan operation mode with the indoor remote controller of your choice without using the cool/heat selector. (VRV Inverter series, Heat Recovery series, PLUS series)
- Constantly monitors malfunctions in the system for 80 items, and is equipped with a "self-diagnosis function" that lets you know by message immediately when a malfunction occurs.
- Lets you carry out various field settings by remote controller.

Wireless remote controller (Optional)



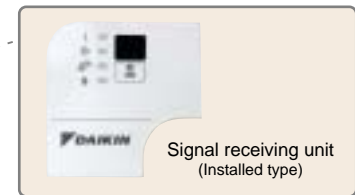
Wireless remote controller

Signal receiving unit (Separate type)

- The same operation modes and settings as with wired remote controllers are possible.
- A compact light receiving unit to be mounted into a wall or ceiling is included.
 - A light receiving unit for a ceiling-mounted cassette (double-flow, multi-flow and 600 x 600 multi-flow) type, ceiling-suspended type and wall-mounted type is mounted into the indoor unit.

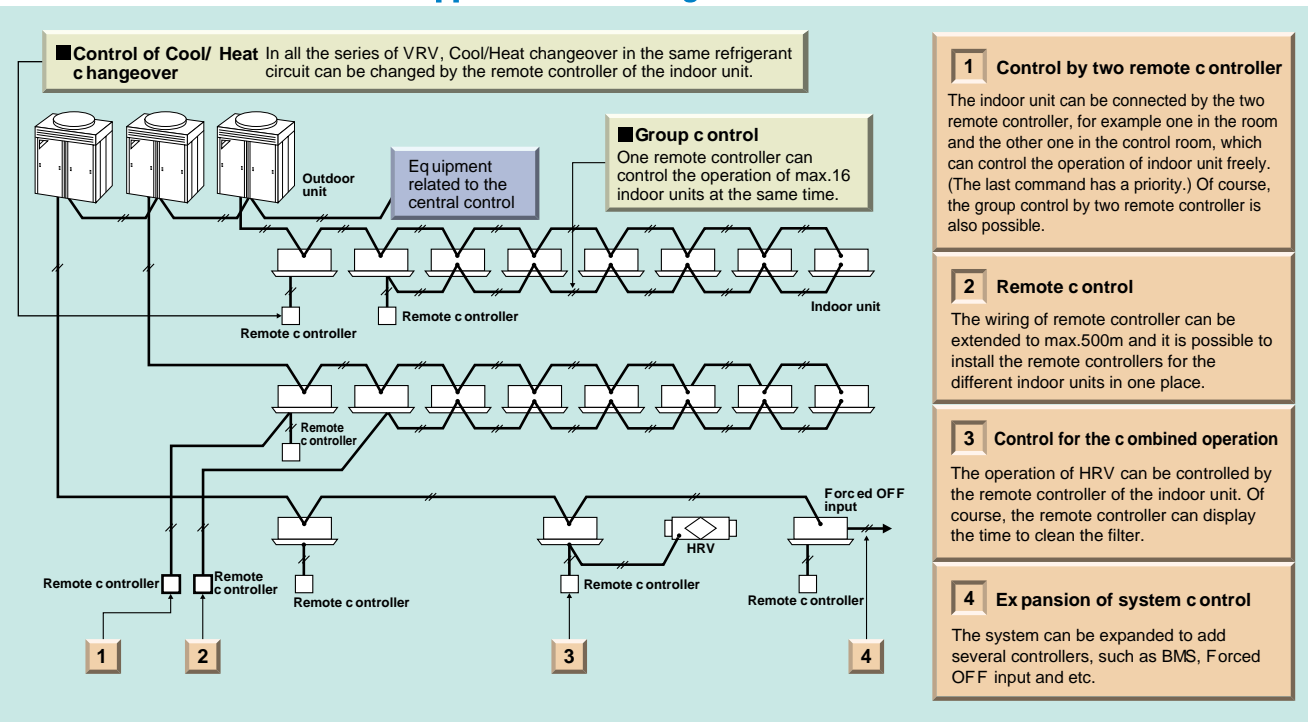


Signal receiving unit can be installed on the panel
ex. 600 x 600 multi-flow type



Signal receiving unit (Installed type)

The wired remote controller supports a wide range of control functions



Set back time clock (Optional)



Set back time clock

- Connected to LCD wired remote controller (BRC type), this time clock can set 2 sets of on/off times in an increment of 30 minutes within a day. For each on/off setting a temperature setting is also possible.

Simple remote controller (Optional)



Exposed type



Concealed type (For hotel use)

- The remote controller has centralized its frequently used operation selectors and switches (on/off, operation mode, temperature setting and airflow volume), making itself suitable for use in hotel rooms or conference rooms.



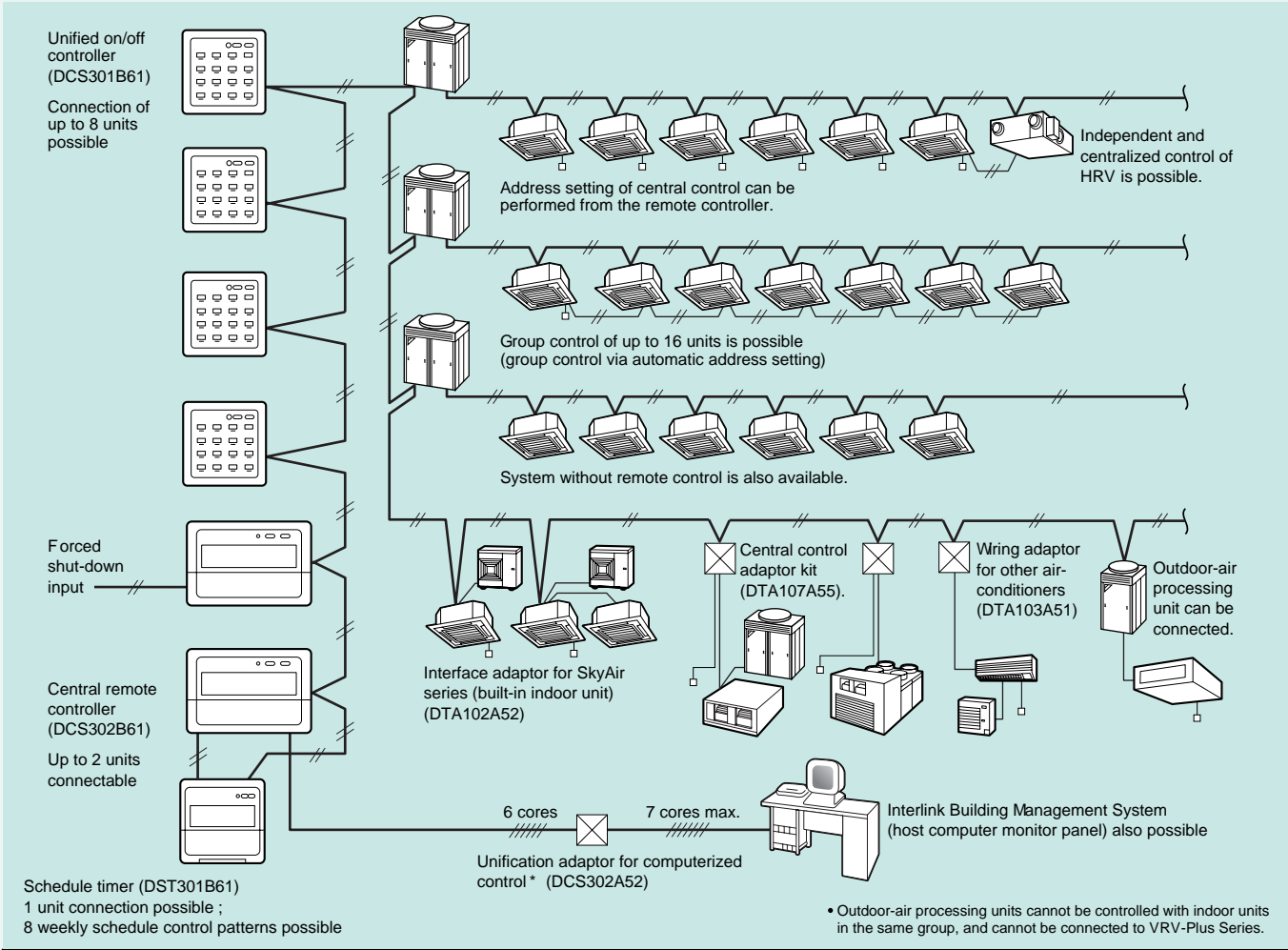
The concealed-type remote controller smartly fits into a night table or console panel in a hotel room.

Wide variation of remote controllers for indoor units

	FXCQ	FXFQ	FXZQ	FXKQ	FXSQ	FXMQ	FXHQ	FXAQ	FXL(N)Q
Wired remote controller	●	●	●	●	●	●	●	●	●
Set back time clock *	●	●	●	●	●	●	●	●	●
Wireless remote controller (Installed signal receiving unit)	●	●	●				●	●	
Wireless remote controller (Separate type signal receiving unit)				●	●	●			●
Simple remote controller (Exposed type)					●	●			●
Simple remote controller (Concealed type: for Hotel use)					●	●			●

Centralized Control Systems

- Up to 64 groups of indoor units (128 units) can be centrally controlled.
- Optional controllers for centralized control can be combined freely, and system can be designed in accordance with building scale and purpose.
- System integration with various air-conditioning peripheral equipment such as HRV (Heat Reclaim Ventilation) is easy.
- Wiring can be run up to a total length of 2 km, and adapts easily to large-scale system expansion.



Equipment, which can be connected to the system

No. of unit	Central remote controller (* 1)	Indoor unit Maximum 128 units	Outdoor unit Maximum 10 units	Associated with adaptor PC board Maximum 10 units
Details	<ul style="list-style-type: none"> Central remote controller (Max. 2 units) Unified ON/OFF controller (Max. 8 units) Schedule timer (Max. 1 unit) Parallel interface (Max. 4 units) 	<ul style="list-style-type: none"> Indoor unit for VRV Indoor unit of SkyAir (separate adaptor is required) HRV BS unit (* 2) FD(Y)M-FA, FDYB-KA, FD(Y)-K(A), FV(Y)P-J-A, UAT(Y)-K(A) series (separate adaptor is required) Wiring adaptor for other air-conditioner Outdoor-air processing unit 	<ul style="list-style-type: none"> Outdoor unit for VRV(* 3) 	<ul style="list-style-type: none"> Wiring adaptor for electrical appendices (Max. 1 unit) External control adaptor for outdoor unit

Note : (* 1) When eight or more central remote controllers are used, the following conditions must be met. (These conditions do not apply for up to seven units.)
 - Central remote controllers + Indoor units + Outdoor units + Other adaptors 160 units
 - Converted central remote controllers* + Indoor units + Outdoor units + Other adaptors 200 units
 * Converted by assuming that one central controller unit (excluding the ON/OFF controller) represents 10 units.
 (* 2) When using BS units, indoor units connected to the BS units are not included in the number of units.
 (* 3) A maximum of 10 outdoor units and 5 function units can be connected.

Central remote controller (Optional)



DCS302B61

64 groups (zones) of indoor units can be controlled individually same as LCD Remote controller.

- Max.64 groups (128 indoor units controllable)
- Max. 128 groups (128 indoor units) are controllable by using 2 central remote controllers, which can control from 2 different places.
- Zone control
- Malfunction code display
- Max. wiring length 1,000 m (Total : 2,000 m)
- Combination with Unified ON/OFF controller, schedule timer and BMS system

Unified ON/ OFF controller(Optional)



DCS301B61

16 groups of indoor units can be operated simultaneously/ individually.

- Max. 16 groups (128 indoor units) controllable
- 2 remote controllers can be used to control from 2 different places.
- Operating status indication (Normal operation, Alarm)
- Centralized control indication
- Max. wiring length 1,000 m (Total : 2,000 m)
- Compact size casing (Thickness : 16 mm)
- Combination with Central Remote controller, Schedule timer and BMS system

Schedule timer (Optional)



DST301B61

Max.128 indoor units can be operated as programmed schedule.

- Max. 128 indoor units controllable
- 8 types of weekly schedule
- Max. 48 hours back up power supply
- Max. wiring length 1,000 m (Total : 2,000 m)
- Compact size casing (Thickness : 16 mm)
- Combination with Central Remote controller, Unified ON/OFF controller and BMS system

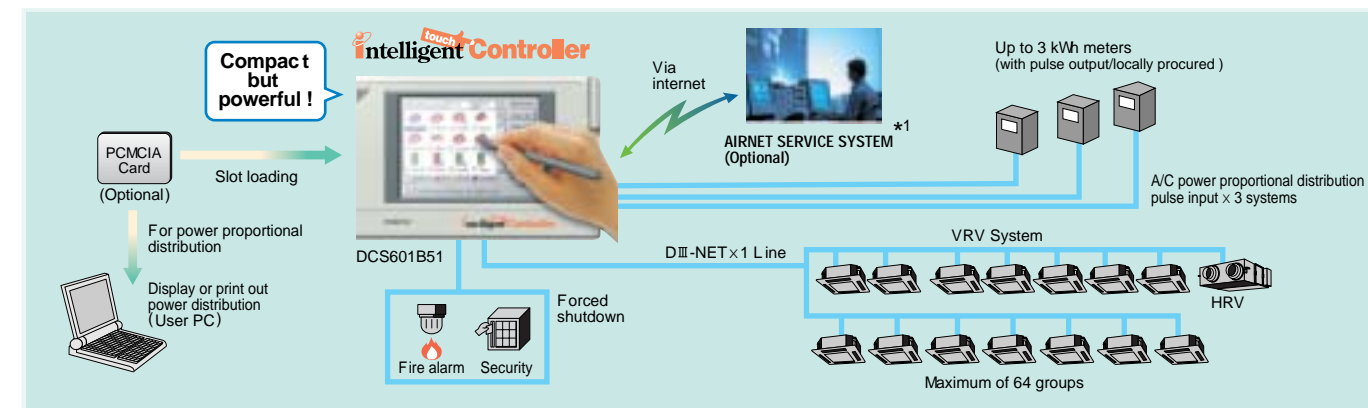
Interface adaptors (Optional)

Part name	Model No.	Function
Unification adaptor for computerized control	★ DCS302A52	Interface between the central monitoring board and central control units. Combined with the central remote controller, this adaptor enables the central monitoring board to centralize such functions as the on/off control, operation status monitoring, and normal/malfunction monitoring. (* 1)
Interface adaptor for SkyAir series	★ DTA102A52 <i>For SkyAir, FDYIM-FA, FDYB-KA, FDY-KA, FVYPU-A</i>	Adaptors required to connect products other than those of the VRV System to the high-speed DIII-NET communication system adopted for the VRV System.
Central control adaptor kit	★ DTA107A55 <i>For UAT(Y)-K(A), FD-K</i>	
Wiring adaptor for other air-conditioner	★ DTA103A51 <i>For air conditioners other than mentioned above.</i>	

Note : 1. Installation box for ★ adaptor must be procured on site.

Advanced control systems

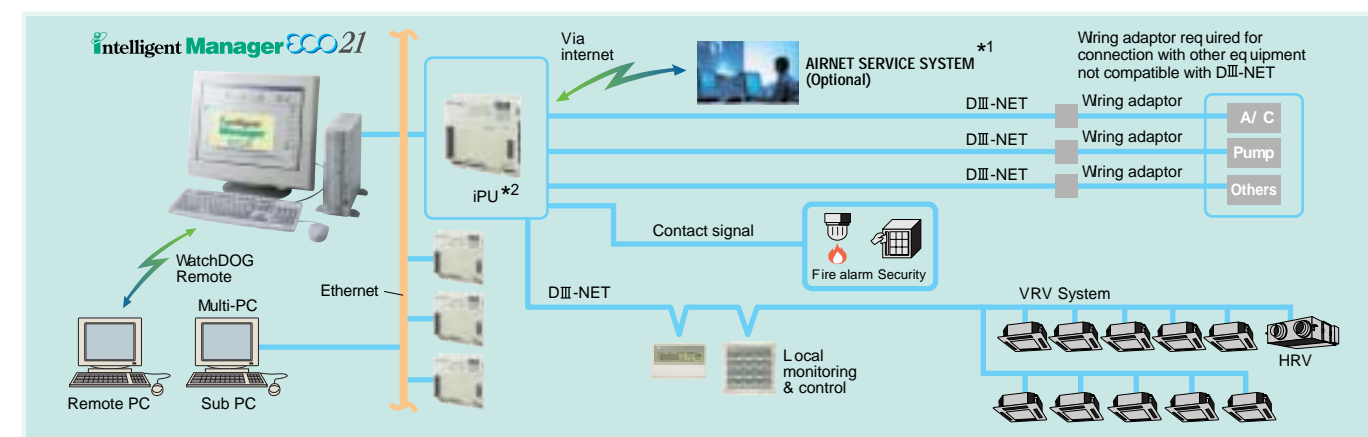
Intelligent touch Controller



The all-in-one color LCD controller offers high functionality in the smallest of size

- Color LCD touch panel icon display
- Small manageable size
- Simplified engineering
- Multi language (English, French, Italian, German, Spanish and Chinese)
- Yearly schedule
- P.P.D. (Power Proportional Distribution function)
- AIRNET service (optional failure prediction)
- Auto heat/cool change-over
- Temperature limitation
- History of 300 actions

Intelligent Manager ECO 21



Centralized control system for easy provision of effective control and monitoring of VRV system functions

- Floor visual navigation
- Graphical report
- Remote intelligent manager
- Multi-PC access
- Watch dog function for remote error monitoring
- Power limit control
- Sliding temperature
- Automatic heat/cool change-over
- ECO mode
- Temperature limitation

BACnet™ and LONWORKS®



Integrated control systems that recognize the trend of open control systems

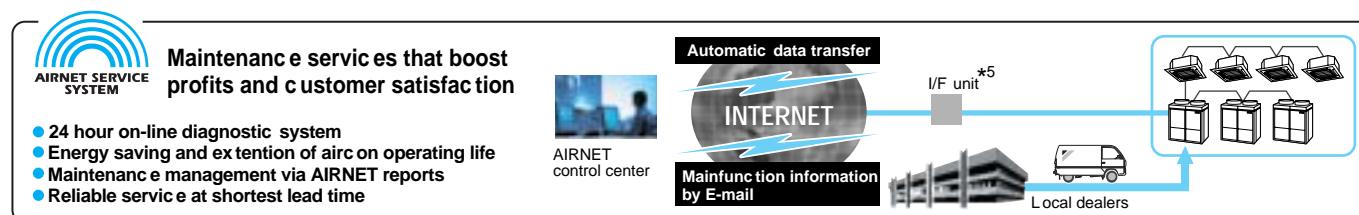
- Compatibility with BMS enhanced by utilizing the international communication standards, BACnet™ or LONWORKS®.

DMS-IF (for LONWORKS®)

- XIF file for confirming of specifications of the units. (LONWORKS®)
- Programmable Delay Start Up for the setting of delay time for starting communication when power is turned on. First in the industry. (LONWORKS®)
- Connectable up to 10 outdoor units and 64 indoor unit groups. (LONWORKS®)

BACnet™

- Conformance class 3 (ASHRAE 135-1995)
- Standard BACnet Device B-ASC (ASHRAE 135-2001)
- BACnet OPC server compatibility
- BACnet/IP over Ethernet
- Up to 40 outdoor units and 256 indoor unit groups on one gateway. (optional adapter)



- Maintenance services that boost profits and customer satisfaction**
- 24 hour on-line diagnostic system
 - Energy saving and extension of aircon operating life
 - Maintenance management via AIRNET reports
 - Reliable service at shortest lead time
- *1. There are restrictions in applicable areas and release times, therefore please consult us separately for details.
 *2. Model name varies upon the system size.
 *3. BACnet™ is a data communication protocol specified as an international standard by ASHRAE (American Society of Heating Refrigeration and Air Conditioning Engineers).
 *4. LONWORKS® is a registered trade mark of Echelon Corporation.
 *5. For an I/F unit, one of the following can be selected: Local Controller, intelligent touch Controller, or intelligent Manager ECO 21.



Indoor units line up

R410A VRV System Indoor Units

Type	Model name		Capacity range											
			20 (0.8 HP)	25 (1HP)	32 (1.25HP)	40 (1.6 HP)	50 (2HP)	63 (2.5HP)	80 (3.2HP)	100 (4HP)	125 (5HP)	200 (8 HP)	250 (10HP)	
Ceiling Mounted Cassette (Double-flow)		FXCQ-MVE	●	●	●	●	●	●	●		●			
Ceiling Mounted Cassette (Multi-flow) Super Cassette		FXFQ-MVE		●	●	●	●	●	●	●	●			
600×600 Multi Flow Ceiling Mounted Cassette	 New	FXZQ-MVE	●	●	●	●	●							
Ceiling Mounted Cassette Corner		FXKQ-MVE		●	●	●		●						
Ceiling Mounted Built-in		FXSQ-MVE	●	●	●	●	●	●	●	●	●			
Ceiling Mounted Duct		FXMQ-MVE				●	●	●	●	●	●	●	●	
Ceiling Suspended		FXHQ-MVE			●			●		●				
Wall Mounted		FXAQ-MVE	●	●	●	New ●	New ●	New ●						
Floor Standing		FXLQ-MVE	●	●	●	●	●	●						
Concealed Floor Standing		FXNQ-MVE	●	●	●	●	●	●						

* R410A VRV system indoor units are not compatible with the R22 VRV system.

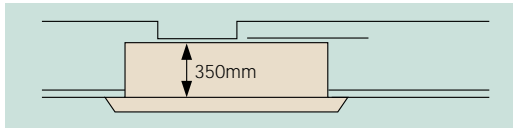
Ceiling mounted cassette (double-flow) type

FXCQ20M/ FXCQ25M/ FXCQ32M
FXCQ40M/ FXCQ50M/ FXCQ63M
FXCQ80M/ FXCQ125M



Thin, lightweight, and easy to install in narrow ceiling space

- The thin unit (only 350 mm high) can be installed in a ceiling space as narrow as 355 mm. All models feature a compact design with a depth of only 600 mm.

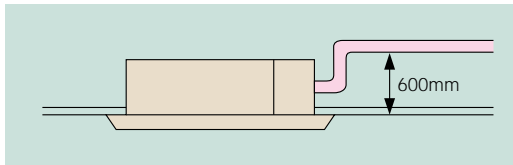


(When a high-efficiency filter is attached, the unit's height is 400mm.)

- Low operating sound (dB(A))

Class	20	25/32	40/50	63	80	125
Operating Sound (H/L)	220V 32/27	34/28	34/29	37/32	39/34	44/38
	240V 34/29	36/30	37/32	39/34	41/36	46/40

- Designed with higher air flow suitable for high ceiling application up to 3 meter.
- Providing 2 different settings of standard and ceiling soiling prevention, the auto swing mechanism ensures even distribution of airflow and room temperature.
- Drain-up pump is equipped as standard accessory with 600mm lift.



- Two types of optional high-efficiency filter are available (65% and 95% NBS).



- A long-life filter (maintenance free up to one year) is equipped as standard accessory.
- Major maintenance work can be performed by removing the panel. A flat-type suction grille and a detachable blade make cleaning easy.



Ceiling mounted c assette (multi-flow) type



FXFQ25M/ FXFQ32M/ FXFQ40M
FXFQ50M/ FXFQ63M/ FXFQ80M
FXFQ100M/ FXFQ125M



**New Super Cassette type is compact,
quiet and easy to install.**

- Regardless of their difference in capacity, all indoor units feature the same panel size and design, in consideration of harmonized interior



- The FXFQ25M-80M are thin models (246mm) which can be installed in narrow false ceilings of at least 265mm depth.

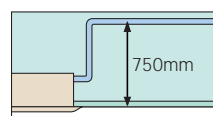
- Because of the light weight, suspension is easy.

- Low operating sound (220V-240V)(dB(A))

Class	25	32	40	50	63	80	100	125
Operating sound (H/L)	30/27	30/27	31/27	32/27	33/28	36/31	39/33	42/36

Note: Operating sound may increase more than that when using with 3-way discharge or 2-way discharge, or when using together with a optional kit.

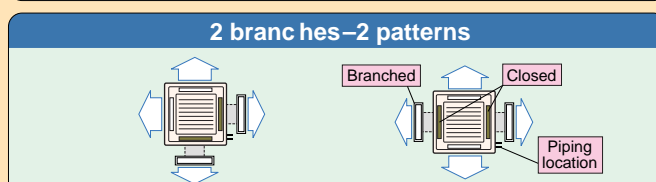
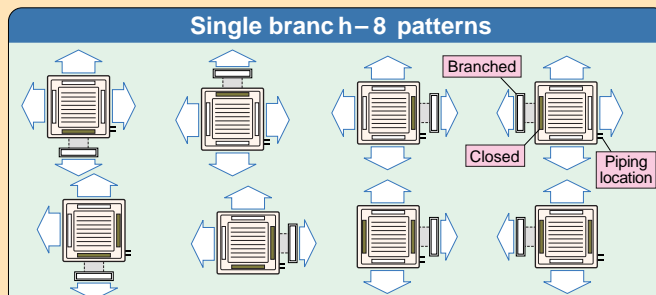
- Provided with high lift drain water lift-up mechanism. (Increased lift of drain pipe up to 750mm from the ceiling.)



- Installing the fresh air intake is now easier using the new optional kit which requires no special chambers.

- A new long-life filter (maintenance-free period extended from one year to two) is equipped as standard accessory.

- 7 discharge patterns in 2 to 4 directions can be selected to suit the requirements of installation site or the shape of the room.
- The number of installation method using ducts has increased as shown below.

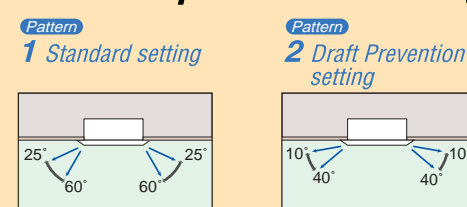


Can also be installed in high ceilings.

Ceiling height	Standard	Number of discharge outlets used					
		FXFQ25M-80M			FXFQ100M-125M		
		4-way air discharge	3-way air discharge	2-way air discharge	4-way air discharge	3-way air discharge	2-way air discharge
Standard		2.7m	3.0m	3.5m	3.2m	3.6m	4.2m
High ceiling ①		3.0m	3.3m	3.8m	3.6m	4.0m	4.2m
High ceiling ②		3.5m	3.5m	-	4.2m	4.2m	-

Note: Set standard 4-way discharge when shipped.
High ceiling types ① and ② will be set for remote control operation

There are 2 patterns in auto swing operation



* Has been set to standard setting at time of shipment.
This can be changed using the remote control

600 x 600 multi flow ceiling mounted c assette type

FXZQ20M/ FXZQ25M/ FXZQ32M
FXZQ40M/ FXZQ50M



**Quiet, stylish unit
with a horizontal blow capability**

- Exactly matches the European style architectural module (600 mm x 600 mm).

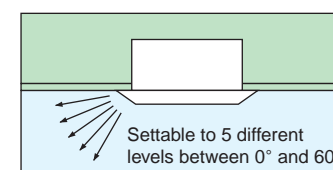
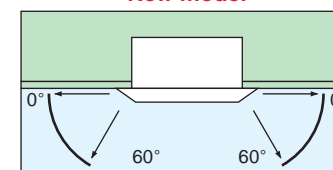
- Low operating sound (240V,50Hz)(dB(A))

Class	20	25	32	40	50
Operating sound (H/L)	31/26	33/27	35/28	38/29	45/35

- Less draft than FXFQ cassette discharge angle:
25° to 60° ⇔ 0° to 60°

- Auto swing

New model



*Angles can be set on site to prevent drafts (0°-35°) or soiling of the ceiling (25°-60°)

- Switch box is inside the unit, which makes maintenance and installation easy.



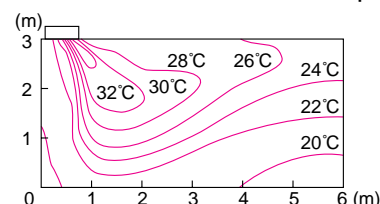
Ceiling mounted cassette corner type

FXKQ25M/ FXKQ32M
FXKQ40M/ FXKQ63M

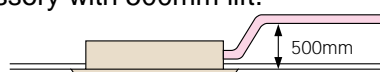


Slim design for flexible installation

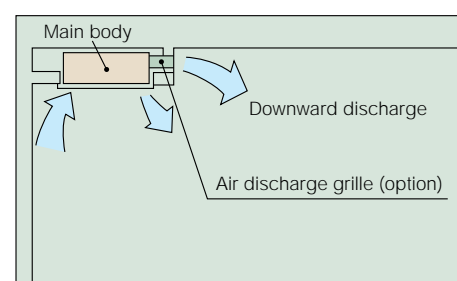
- Single-flow type allows effective air discharge from corner or from drop-ceiling.
- Providing 3 different settings of standard, draft prevention and ceiling soiling prevention, the auto swing mechanism ensures even distribution of airflow and room temperature.



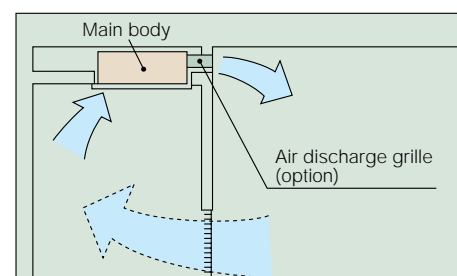
- Drain-up pump is equipped as standard accessory with 500mm lift.



- Front discharge is possible with a air discharge unit (optional), which allows the installation in the drop-ceiling or sagging wall.

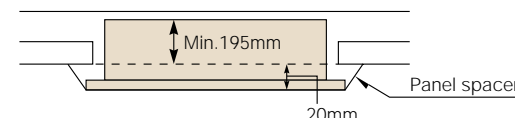


*Set for front discharge using a suspended ceiling.



*Downward discharge is shut off and air is blown straight out (front discharge).

- Slim body needs only 220mm space above the ceiling. If you use panel spacer (optional), the unit can be installed in the min. space of 195mm.



- A long-life filter (maintenance free up to one year) is equipped as standard accessory.



Ceiling mounted built-in type

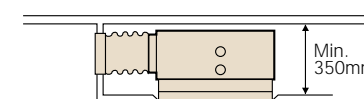
FXSQ20M/ FXSQ25M/ FXSQ32M
FXSQ40M/ FXSQ50M/ FXSQ63M
FXSQ80M/ FXSQ100M/ FXSQ125M



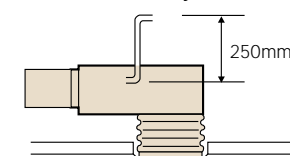
Highly Flexible for Various Application

- Highly flexible installation is possible with a complete line-up of optional kits to satisfy the various needs, such as the design concept, interior decoration and so on.

- The unit can be installed, if there is a space of 350mm above ceiling. (when suction panel is used.)

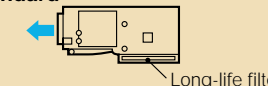


- Drain-up pump is equipped as Standard accessory with 250mm lift.

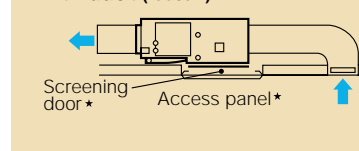


Installation examples (* Optional parts)

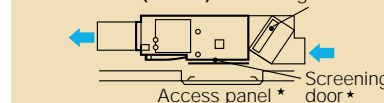
• Standard



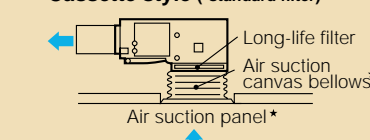
• With duct (case 1)



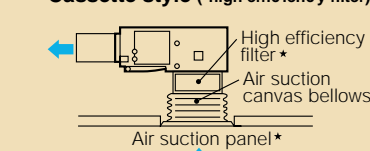
• With duct (case 2)



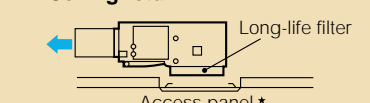
•Cassette style (standard filter)



•Cassette style (high efficiency filter)



•Ceiling return



- High external static pressure allows to use even flexible ducts of various length.

- Low operating sound (dB(A))

Class	20	25	32	40	50	63	80	100	125
Operating Sound (H/L)	220V 37/32	37/32	38/32	38/32	41/36	42/35	43/37	43/37	46/41
	240V 39/34	39/34	40/34	40/34	43/38	44/37	45/39	45/39	48/37

- Two types of optional high-efficiency filter are available (65% and 95% NBS).

- A long-life filter (maintenance free up to one year) is equipped as standard accessory.



Ceiling mounted duct type

FXMQ40M/ FXMQ50M/ FXMQ63M
FXMQ80M/ FXMQ100M/ FXMQ125M



High static pressure allows flexible duct design.

- More than 150Pa of external static pressure
- High external static pressure allows extensive duct work for flexible applications.
- Full line-up of 8 models from 40 to 250 type.
- Optional accessories include a drain-up kit, high-efficiency filters (65% and 95% NBS) and a long-life filter (maintenance free up to 1 year).

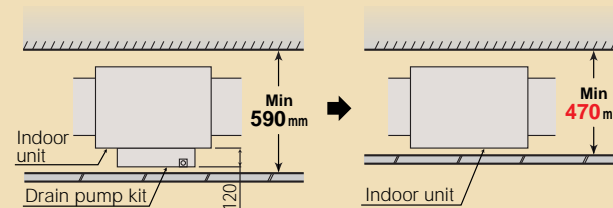


FXMQ200M/ FXMQ250M



- **Simplified Static Pressure Control**
External static pressure can be easily adjusted using a change-over switch inside the electrical box to meet the resistance in the duct system.

- **Built-in Drain Pump (optional)**
Housing the drain pump inside the unit has reduced the space required for installation.



Ceiling suspended type

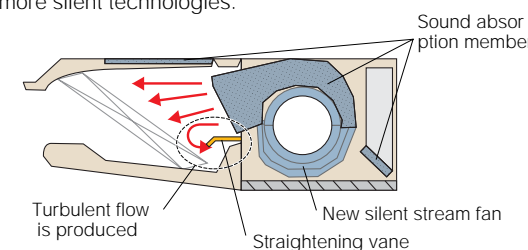
FXHQ32M/ FXHQ63M/ FXHQ100M



Slim body with quieter and wider air flow

- **Adoption of newly designed SILENT STREAM FAN**

Uses the new silent stream fan and many more silent technologies.

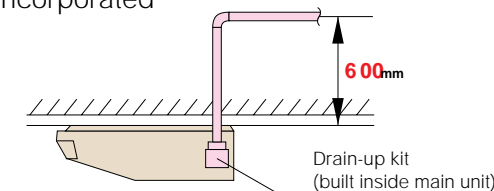


- **Low operating sound** (220V-240V)(dB(A))

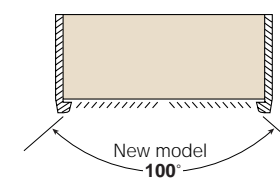
Class	32	63	100
Operating sound (H/L)	36/31	39/34	45/37

- **Installation is easy**

- Drain-up kit (optional) can be easily incorporated

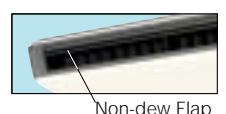


- **Wide air discharge openings produce a spreading 100° air flow**



- **Maintenance is easy**

- New Non-dew Flap with no implanted Bristle-free Flap minimizes contamination and makes cleaning simpler.



- Easy to clean flat design
- Maintenance is easier because everything can be performed from below the unit
- A long-life filter (maintenance free up to one year) is equipped as standard



Wall mounted type

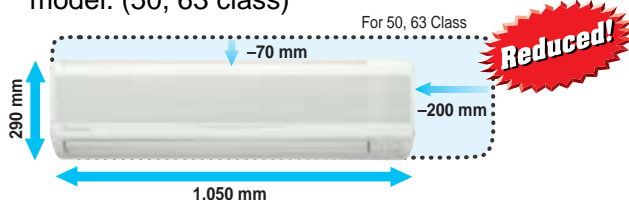
FXAQ20M/ FxAQ25M/ FxAQ32M
FXAQ40M/ FxAQ50M/ FxAQ63M



New

Sophisticated design and compact casing harmonized in any interior décor

- Compact and stylish design that does not detract from the decor of the room.
- More compact than compared with previous model. (50, 63 class)



- Drastic 10 kg weight reduction from 24 kg to 14 kg.
- Volume reduced by 22%.
- Space savings of up to 47%.

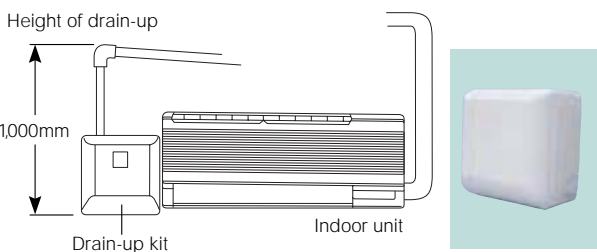
Low operating sound

Class	20	25	32	40	50	63
Operating sound (H/L)	35/29	36/29	37/29	39/34	42/36	46/39

- Drain pan and air filter can be kept clean by mildew-proof polystyrene.
- Washable grille, the front grille can be easily removed for washing.
- Auto-swing ensures efficiency of air distribution. The louver closes automatically when the unit stops.
- 5 steps of discharge angle can be set by remote controller.
- Discharge angle is automatically set at the same angle as the previous operation when restarts. (Initial setting; 10° for cooling and 70° for heating)



- Drain-pump kit is available as optional accessory, which lifts the drain 1,000mm from the bottom of the unit.
- Flexible installation.
 - Drain pipe can be fitted to from either left or right sides.



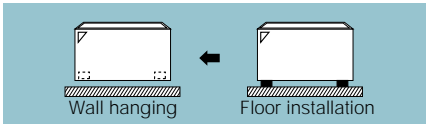
Floor standing type

FXLQ20M/ FXLQ25M/ FXLQ32M
FXLQ40M/ FXLQ50M/ FXLQ63M



Perfect unit for perimeter zone air conditioning.

- Floor standing types can be hung on the wall for easier cleaning. Since running the piping from the back allows the unit to be hung on walls. Cleaning under the unit, where dust tends to accumulate, is now easier.
- The adoption of a fiber-less discharge grille featuring an original design to prevent condensation also helps prevent staining and makes cleaning easier.
- A long-life filter (maintenance free up to one year) is equipped as standard accessory.



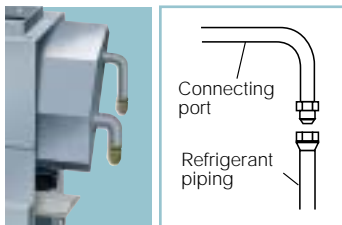
Concealed floor standing type

FXNQ20M/ FXNQ25M/ FXNQ32M
FXNQ40M/ FXNQ50M/ FXNQ63M



Perfect unit to be concealed in the skirting-wall of perimeter.

- The unit is perfectly concealed in skirting-wall of perimeter, that enables to create high class interior design.
- The connecting port faces downward, greatly facilitating on-site piping work.
- A long-life filter (maintenance free up to one year) is equipped as standard accessory.



* Applies also to floor standing type (FXNQ-M).

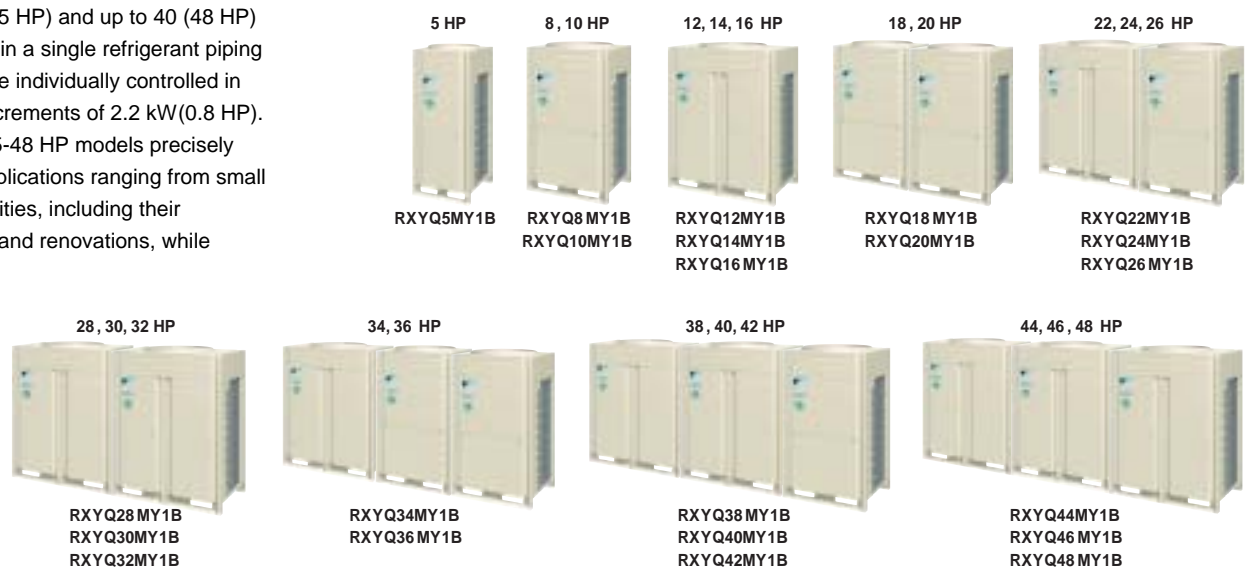




Outdoor units line up

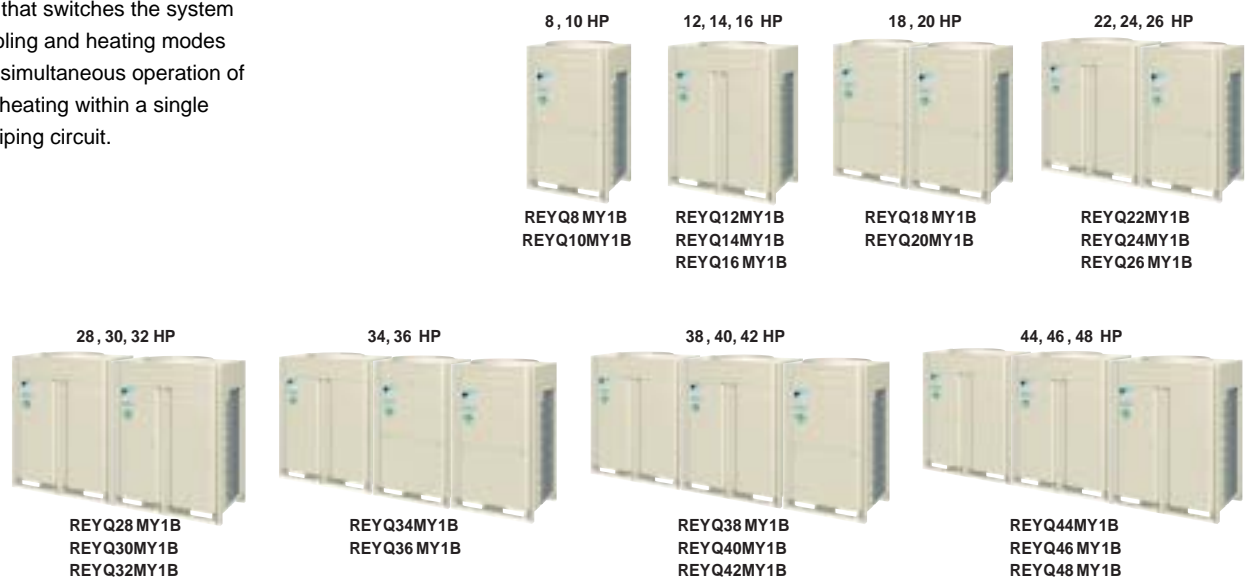
Heat pump type

Between 8 (5 HP) and up to 40 (48 HP) indoor units in a single refrigerant piping circuit can be individually controlled in minimum increments of 2.2 kW(0.8 HP). A lineup of 5-48 HP models precisely supports applications ranging from small to large facilities, including their expansions and renovations, while



Heat rec overy type

The BS unit that switches the system between cooling and heating modes enables the simultaneous operation of cooling and heating within a single refrigerant piping circuit.



Series Line Up

Series	Capacity range																			
	5 HP	8 HP	10 HP	12 HP	14 HP	16 HP	18 HP	20 HP	22 HP	24 HP	26 HP	28 HP	30 HP	32 HP	34 HP	36 HP	38 HP	40 HP	42 HP	44 HP
Heat pump type	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat rec overy type	—	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●



What is Heat recovery type?

Modern office buildings are highly airtight and subject to an increasing heat load due to the use of computers, lighting equipment and other office equipment. In these buildings some rooms may require artificial cooling even in winter, depending on the amount of sunshine received and the number of people in the room. In order to meet such requirements the Heat Recovery Series enables the simultaneous operation of cooling and heating by controlling the BS unit that switches cooling and heating. This series also substantially improves energy efficiency by recycling exhaust heat.



- The adoption of an inverter-controlled R-HIDECS circuit has achieved an efficient exhaust heat recovery operation. This circuit enables exhaust gas generated during cooling operation to be utilized for heating operation, reducing power consumption by 15 to 20% compared with that of conventional systems.
- Cooling and heating modes switch over automatically according to preset temperatures. The system also responds flexibly to changes in the room's heat load.

Energy saving by Heat Recovery

Heat rec overy operation mode		Total load			Standard ratio of power input for outdoor unit		
		Cooling load (equipment HP)	Heating load (equipment HP)	Unit load (equipment HP)	Heat radiation to outdoor air (equipment HP)	Heat absorption from outdoor air (equipment HP)	Compressor power ratio (equipment HP ratio)
(A)	Heat radiation operation (all cooling operation) 	10	—	10	10	—	100
(B)	Heat radiation tendency heat rec overy operation (mainly cooling, part heating operation) 	7.5	2.5	10	5	—	48
(C)	Heat rec overy operation (cooling and heating operation) 	5	5	10	—	—	47
(D)	Heat absorption tendency heat rec overy operation (mainly heating, part cooling operation) 	2.5	7.5	10	—	5	72
(E)	Heat absorption operation (all heating operation) 	—	10	10	—	10	89

Note: Operation modes (A) and (E) are applicable when the outdoor temperature is 35°C and 0°C respectively; The other modes are applicable under typical outdoor conditions.



Basic combination

Heat Pump Type

HP	Model name	Combination	Number of connectable indoor units
5 HP	RXYQ5M	RXYQ5M	8
8 HP	RXYQ8M	RXYQ8M	13
10 HP	RXYQ10M	RXYQ10M	16
12 HP	RXYQ12M	RXYQ12M	20
14 HP	RXYQ14M	RXYQ14M	
16 HP	RXYQ16M	RXYQ16M	
18 HP	RXYQ18M	RXYQ8M + RXYQ10M	
20 HP	RXYQ20M	RXYQ10M x 2	22
22 HP	RXYQ22M	RXYQ10M + RXYQ12M	
24 HP	RXYQ24M	RXYQ10M + RXYQ14M	
26 HP	RXYQ26M	RXYQ10M + RXYQ16M	
28 HP	RXYQ28M	RXYQ12M + RXYQ16M	32
30 HP	RXYQ30M	RXYQ14M + RXYQ16M	
32 HP	RXYQ32M	RXYQ16M x 2	
34 HP	RXYQ34M	RXYQ10M x 2 + RXYQ14M	
36 HP	RXYQ36M	RXYQ10M x 2 + RXYQ16M	36
38 HP	RXYQ38M	RXYQ10M + RXYQ12M + RXYQ16M	38
40 HP	RXYQ40M	RXYQ10M + RXYQ14M + RXYQ16M	40
42 HP	RXYQ42M	RXYQ10M + RXYQ16M x 2	
44 HP	RXYQ44M	RXYQ12M + RXYQ16M x 2	
46 HP	RXYQ46M	RXYQ14M + RXYQ16M x 2	
48 HP	RXYQ48M	RXYQ16M x 3	

Heat Rec over y Type

HP	Model name	Combination	Number of connectable indoor units
8 HP	REYQ8M	REYQ8M	13
10 HP	REYQ10M	REYQ10M	16
12 HP	REYQ12M	REYQ12M	20
14 HP	REYQ14M	REYQ14M	
16 HP	REYQ16M	REYQ16M	
18 HP	REYQ18M	REYQ8M + REYQ10M	
20 HP	REYQ20M	REYQ10M x 2	22
22 HP	REYQ22M	REYQ10M + REYQ12M	
24 HP	REYQ24M	REYQ10M + REYQ14M	
26 HP	REYQ26M	REYQ10M + REYQ16M	
28 HP	REYQ28M	REYQ12M + REYQ16M	32
30 HP	REYQ30M	REYQ14M + REYQ16M	
32 HP	REYQ32M	REYQ16M x 2	
34 HP	REYQ34M	REYQ10M x 2 + REYQ14M	
36 HP	REYQ36M	REYQ10M x 2 + REYQ16M	36
38 HP	REYQ38M	REYQ10M + REYQ12M + REYQ16M	38
40 HP	REYQ40M	REYQ10M + REYQ14M + REYQ16M	40
42 HP	REYQ42M	REYQ10M + REYQ16M x 2	
44 HP	REYQ44M	REYQ12M + REYQ16M x 2	
46 HP	REYQ46M	REYQ14M + REYQ16M x 2	
48 HP	REYQ48M	REYQ16M x 3	



Specifications

INDOOR UNITS

Ceiling Mounted Cassette <Double flow> Type



MODEL		FXCQ20MVE	FXCQ25MVE	FXCQ32MVE	FXCQ40MVE	FXCQ50MVE	FXCQ63MVE	FXCQ80MVE	FXCQ125MVE
Power supply		1 phase, 220-240V/220V, 50/60Hz							
Cooling capacity	kcal/h (* 1)	2,000	2,500	3,150	4,000	5,000	6,300	8,000	12,500
	Btu/h (* 1)	7,900	9,900	12,500	15,900	19,900	25,000	31,800	49,600
	kW	(* 1)	2.3	2.9	3.7	4.7	5.8	7.3	14.5
		(* 2)	2.2	2.8	3.6	4.5	5.6	7.1	14.0
Heating capacity	kcal/h	2,200	2,800	3,400	4,300	5,400	6,900	8,600	13,800
	Btu/h	8,500	10,900	13,600	17,000	21,500	27,300	34,100	54,600
	kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	16.0
Casing		Galvanized steel plate							
Air flow rate (Hi/Lo)	m³/min	7/5	9/6.5	9/6.5	12/9	12/9	16.5/13	26/21	33/25
	cfm	247/177	318/230	318/230	424/318	424/318	582/459	918/741	1,165/883
Sound level (Hi/Lo)	dB(A)	220V	32/27	34/28	34/28	34/29	37/32	39/34	44/38
		240V	34/29	36/30	36/30	37/32	37/32	39/34	41/36
Dimensions (H×W×D)	mm	305×775×600	305×775×600	305×775×600	305×990×600	305×990×600	305×1,175×600	305×1,665×600	305×1,665×600
Machine weight	kg	26.0	26.0	26.0	31.0	32.0	35.0	47.0	48.0
Piping connections	Liquid(Flare)mm	φ 6.4	φ 6.4	φ 6.4	φ 6.4	φ 6.4	φ 9.5	φ 9.5	φ 9.5
	Gas(Flare)mm	φ 12.7	φ 12.7	φ 12.7	φ 12.7	φ 12.7	φ 15.9	φ 15.9	φ 15.9
	Drain piping	VP25 (External Dia, 32/Internal Dia, 25)							
Panel(Optional)	★1 Model	BYBC32GJW	BYBC32GJW	BYBC32GJW	BYBC50GJW	BYBC50GJW	BYBC63GJW	BYBC125GJW	BYBC125GJW
		BYBC32G-W	BYBC32G-W	BYBC32G-W	BYBC50G-W	BYBC50G-W	BYBC63G-W	BYBC125G-W	BYBC125G-W
	Colour	White							
Dimensions (H×W×D)	mm	53×1,030×680	53×1,030×680	53×1,030×680	53×1,245×680	53×1,245×680	53×1,430×680	53×1,920×680	53×1,920×680
	weight kg	8.0	8.0	8.0	8.5	8.5	9.5	12.0	12.0

Note: ★1 BYBC-GJW: Without origin, BYBC-G-W: With origin

Ceiling Mounted Cassette <Multi-flow> Type



MODEL		FXFQ25MVE	FXFQ32MVE	FXFQ40MVE	FXFQ50MVE	FXFQ63MVE	FXFQ80MVE	FXFQ100MVE	FXFQ125MVE
Power supply		1 phase, 220-240V/220V, 50/60Hz							
Cooling capacity	kcal/h (* 1)	2,500	3,150	4,000	5,000	6,300	8,000	10,000	12,500
	Btu/h (* 1)	9,900	12,500	15,900	19,900	25,000	31,800	39,700	49,600
	kW	(* 1)	2.9	3.7	4.7	5.8	7.3	9.3	11.6
		(* 2)	2.8	3.6	4.5	5.6	7.1	9.0	11.2
Heating capacity	kcal/h	2,800	3,400	4,300	5,400	6,900	8,600	10,800	13,800
	Btu/h	10,900	13,600	17,000	21,500	27,300	34,100	42,700	54,600
	kW	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0
Casing		Galvanized steel plate							
Air flow rate (Hi/Lo)	m³/min	13/10	13/10	15/11	16/11	18.5/14	20/15	26/21	30/24
	cfm	459/353	459/353	530/388	565/388	653/494	706/530	918/741	1,059/847
Sound level (Hi/Lo) (220V-240V)	dB(A)	30/27	30/27	31/27	32/27	33/28	36/31	39/33	42/36
Dimensions (H×W×D)	mm	246×840×840	246×840×840	246×840×840	246×840×840	246×840×840	246×840×840	288×840×840	288×840×840
Machine weight	kg	24.0	24.0	24.0	24.0	25.0	25.0	29.0	29.0
Piping connections	Liquid(Flare)mm	φ 6.4	φ 6.4	φ 6.4	φ 6.4	φ 9.5	φ 9.5	φ 9.5	φ 9.5
	Gas(Flare)mm	φ 12.7	φ 12.7	φ 12.7	φ 12.7	φ 15.9	φ 15.9	φ 15.9	φ 15.9
	Drain piping	VP25 (External Dia, 32/Internal Dia, 25)							
Panel(Optional)	Model	BYCP125D-W	BYCP125D-W	BYCP125D-W	BYCP125D-W	BYCP125D-W	BYCP125D-W	BYCP125D-W	BYCP125D-W
	Colour	White							
Dimensions (H×W×D)	mm	45×950×950	45×950×950	45×950×950	45×950×950	45×950×950	45×950×950	45×950×950	45×950×950
	weight kg	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5

Note : Specifications are based on the following conditions;
•Cooling : (* 1) Indoor temp. of 27°CDB, 19.5°CWB, and outdoor temp. of 35.0 °CDB. (* 2) Indoor temp. of 27°CDB, 19.0°CWB, and outdoor temp. of 35.0 °CDB.
•Heating : Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
•Eq uivalent piping length : 7.5m
•L evel difference : 0m
•Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See ENGINEERING DATA for detail.)
•Sound level : Anechoic chamber conversion value, measured under JISB8616 conditions. During actual operation, these values are normally bient conditions.



INDOOR UNITS

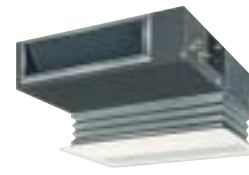
600x600 Multi Flow Ceiling Mounted Cassette Type



MODEL		FXZQ20MVE	FXZQ25MVE	FXZQ32MVE	FXZQ40MVE	FXZQ50MVE
Power supply		1 phase, 220-240V/220V, 50/60Hz				
Cooling capacity	kcal/h (* 1)	2,000	2,500	3,150	4,000	5,000
	Btu/h (* 1)	7,900	9,900	12,500	15,900	19,900
	kW	(* 1)	2.3	2.9	3.7	4.7
		(* 2)	2.2	2.8	3.6	4.5
Heating capacity	kcal/h	2,200	2,800	3,400	4,300	5,400
	Btu/h	8,500	10,900	13,600	17,000	21,500
	kW	2.5	3.2	4.0	5.0	6.3
Casing		Galvanized steel plate				
Air flow rate (Hi/L o)	m ³ /min	50Hz	9/7	9/7	9.5/7.5	11/8
	cfm	50Hz	318/247	318/247	335/265	388/282
Sound level (Hi/L o) (240V)	dB(A)		31/26	33/27	35/28	38/29
Dimensions (HxWxD)	mm		260(286)×575×575 () :include control box			
Machine weight	kg		18			
Piping connections	Liquid(Flare)mm	φ 6.4		φ 6.4	φ 6.4	φ 6.4
	Gas(Flare)mm	φ 12.7		φ 12.7	φ 12.7	φ 12.7
	Drain piping		VP20 (External Dia, 26/Internal Dia, 20)			
Panel (Option)	Model		BYFQ60BW1			
	Colour		White			
Dimensions (HxWxD)	mm		55×700×700	55×700×700	55×700×700	55×700×700
	weight	kg	2.7	2.7	2.7	2.7

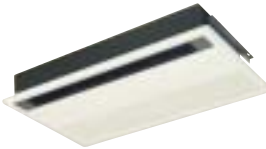
INDOOR UNITS

Ceiling Mounted Built-in Type



MODEL		FXSQ20MVE	FXSQ25MVE	FXSQ32MVE	FXSQ40MVE	FXSQ50MVE	FXSQ63MVE	FXSQ80MVE	FXSQ100MVE	FXSQ125MVE
Power supply		1 phase, 220-240V/220V, 50/60Hz								
Cooling capacity	kcal/h (* 1)	2,000	2,500	3,150	4,000	5,000	6,300	8,000	10,000	12,500
	Btu/h (* 1)	7,900	9,900	12,500	15,900	19,900	25,000	31,800	39,700	49,600
	kW	(* 1)	2.3	2.9	3.7	4.7	5.8	7.3	9.3	11.6
		(* 2)	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2
Heating capacity	kcal/h	2,200	2,800	3,400	4,300	5,400	6,900	8,600	10,800	13,800
	Btu/h	8,500	10,900	13,600	17,000	21,500	27,300	34,100	42,700	54,600
	kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0
Casing		Galvanized steel plate								
Air flow rate (Hi/L o)	m ³ /min	9/6.5	9/6.5	9.5/7	11.5/9	15/11	21/15.5	27/21.5	28/22	38/28
	cfm	318/230	318/230	335/247	406/318	530/388	741/547	953/759	988/777	1,341/988
Sound level (Hi/L o)	dB(A)	220V	37/32	37/32	38/32	38/32	41/36	42/35	43/37	46/41
		240V	39/34	39/34	40/34	40/34	43/38	44/37	45/39	48/43
Dimensions(HxWxD)	mm		300×550×800	300×550×800	300×550×800	300×700×800	300×700×800	300×1,000×800	300×1,400×800	300×1,400×800
Machine weight	kg		30.0	30.0	30.0	30.0	31.0	41.0	51.0	52.0
Piping connections	Liquid(Flare)mm	φ 6.4	φ 6.4	φ 6.4	φ 6.4	φ 6.4	φ 9.5	φ 9.5	φ 9.5	φ 9.5
	Gas(Flare)mm	φ 12.7	φ 12.7	φ 12.7	φ 12.7	φ 12.7	φ 15.9	φ 15.9	φ 15.9	φ 15.9
	Drain piping		VP25 (External Dia, 32/Internal Dia, 25)							
Panel(Option)	Model		BYBS32DJW1	BYBS32DJW1	BYBS32DJW1	BYBS45DJW1	BYBS45DJW1	BYBS71DJW1	BYBS125DJW1	BYBS125DJW1
	Colour		White							
Dimensions (HxWxD)	mm		55×650×500	55×650×500	55×650×500	55×800×500	55×800×500	55×1,100×500	55×1,500×500	55×1,500×500
	weight	kg	3.0	3.0	3.0	3.5	3.5	4.5	6.5	6.5

Ceiling Mounted Cassette Corner Type



MODEL		FXKQ25MVE	FXKQ32MVE	FXKQ40MVE	FXKQ63MVE
Power supply		1 phase, 220-240V/220V, 50/60Hz			
Cooling capacity	kcal/h (* 1)	2,500	3,150	4,000	6,300
	Btu/h (* 1)	9,900	12,500	15,900	25,000
	kW	(* 1)	2.9	3.7	4.7
		(* 2)	2.8	3.6	4.5
Heating capacity	kcal/h	2,800	3,400	4,300	6,900
	Btu/h	10,900	13,600	17,000	27,300
	kW	3.2	4.0	5.0	8.0
Casing		Galvanized steel plate			
Air flow rate (Hi/L o)	m ³ /min	11/9	11/9	13/10	18/15
	cfm	388/318	388/318	459/353	635/530
Sound level (Hi/L o)	dB(A)	220V	38/33	38/33	40/34
		240V	40/35	40/35	42/36
Dimensions (HxWxD)	mm		215×1,110×710	215×1,110×710	215×1,310×710
Machine weight	kg		31.0	31.0	34.0
Piping connections	Liquid(Flare)mm	φ 6.4	φ 6.4	φ 6.4	φ 9.5
	Gas(Flare)mm	φ 12.7	φ 12.7	φ 12.7	φ 15.9
	Drain piping		VP25 (External Dia, 32/Internal Dia, 25)		
Panel (Option)	Model		BYK45FJW1	BYK45FJW1	BYK45FJW1
	Colour		White		
Dimensions (HxWxD)	mm		70×1,240×800	70×1,240×800	70×1,440×800
	weight	kg	8.5	8.5	9.5

Note : Specifications are based on the following conditions;
•Cooling : (* 1) Indoor temp. of 27°CDB, 19.5°CWB, and outdoor temp. of 35.0 °CDB.
(* 2) Indoor temp. of 27°CDB, 19.0°CWB, and outdoor temp. of 35.0 °CDB.
•Heating : Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
•Equivalent piping length : 7.5m
•Level difference : 0m
•Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See ENGINEERING DATA for detail.)
•Sound level : (**FXKQ-M**) : anechoic chamber conversion value, measured at a point 1.5 m downward from the unit center.
(**FXKQ-M**) : anechoic chamber conversion value, measured at a point 1 m in front of the unit and 1 m downward.
During actual operation, these values are normally somewhat higher as a result of ambient conditions.

Ceiling Mounted Duct Type



MODEL		FXMQ40MVE	FXMQ50MVE	FXMQ63MVE	FXMQ80MVE	FXMQ100MVE	FXMQ125MVE	FXMQ200MVE	FXMQ250MVE
Power supply		1 phase, 220-240V/220V, 50/60Hz							
Cooling capacity	kcal/h (* 1)	4,000	5,000	6,300	8,000	10,000	12,500	20,000	25,000
	Btu/h (* 1)	15,900	19,900	25,000	31,800	39,700	49,600	79,000	99,000
	kW	(* 1)	4.7	5.8	7.3	9.3	11.6	14.5	23.0
		(* 2)	4.5	5.6	7.1	9.0	11.2	14.0	22.4
Heating capacity	kcal/h	4,300	5,400	6,900	8,600	10,800	13,800	21,500	27,000
	Btu/h	17,000	21,500	27,300	34,100	42,700	54,600	85,300	107,500
	kW	5.0	6.3	8.0	10.0	12.5	16.0	25.0	31.5
Casing		Galvanized steel plate							
Air flow rate (Hi/L o)	m ³ /min	14/11.5	14/11.5	14/11.5	19.5/16	29/23	36/29	58/50	72/62
	cfm	494/406	494/406	494/406	688/565	1,024/812	1,271/1,024	2,047/1,765	2,542/2,189
Sound level (Hi/L o)	dB(A)	220V	39/35	39/35	39/35	42/38	43/39	45/42	48/45
		240V	41/37	41/37	41/37	44/40	45/41	47/44	49/46
Dimensions (HxWxD)	mm		390×720×690	390×720×690	390×720×690	390×720×690	390×1,110×690	390×1,110×690	470×1,380×1,100
Machine weight	kg		44.0	44.0	44.0	45.0	63.0	65.0	137.0
Piping connections	Liquid(Flare)mm	φ 6.4	φ 6.4	φ 9.5	φ 9.5	φ 9.5	φ 9.5	φ 9.5	φ 9.5
	Gas(Flare)mm	φ 12.7	φ 12.7	φ 15.9	φ 15.9	φ 15.9	φ 15.9	φ 19.1(Brazing)	φ 22.2(Brazing)
	Drain piping		VP25 (External Dia, 32/Internal Dia, 25)						PS1B

Note : Specifications are based on the following conditions;
•Cooling : (* 1) Indoor temp. of 27°CDB, 19.5°CWB, and outdoor temp. of 35.0 °CDB.
(* 2) Indoor temp. of 27°CDB, 19.0°CWB, and outdoor temp. of 35.0 °CDB.
•Heating : Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
•Equivalent piping length : 7.5m
•Level difference : 0m
•Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See ENGINEERING DATA for detail.)
•Sound level : (**FXMQ-M**) : anechoic chamber conversion value, measured at a point 1.5 m downward from the unit center.
(**FXMQ-M**) : anechoic chamber conversion value, measured under JISB8616 conditions.
During actual operation, these values are normally somewhat higher as a result of ambient conditions.



INDOOR UNITS

Ceiling Suspended Type



MODEL		FXHQ32MVE	FXHQ63MVE	FXHQ100MVE
Power supply		1 phase, 220-240V/220V, 50/60Hz		
Cooling capacity	kcal/h (* 1)	3,150	6,300	10,000
		12,500	25,000	39,700
	kW	(* 1)	7.3	11.6
		(* 2)	3.6	7.1
Heating capacity	kcal/h	3,400	6,900	10,800
	Btu/h	13,600	27,300	42,700
	kW	4.0	8.0	12.5
Casing		White		
Air flow rate (Hi/Lo)	m ³ /min	12/10	17.5/14	25/19.5
	cfm	424/353	618/494	883/688
Sound level (Hi/Lo) (220V-240V)	dB(A)	36/31	39/34	45/37
Dimensions(H×W×D)	mm	195×960×680	195×1,160×680	195×1,400×680
Machine weight	kg	24.0	28.0	33.0
Piping connections	Liquid(Flare)mm	φ 6.4	φ 9.5	φ 9.5
	Gas(Flare)mm	φ 12.7	φ 15.9	φ 15.9
	Drain piping	VP20 (External Dia, 26/Internal Dia, 20)		

Wall Mounted Type



MODEL		FXAQ20MVE	FXAQ25MVE	FXAQ32MVE	FXAQ40MVE	FXAQ50MVE	FXAQ63MVE
Power supply		1 phase, 220-240V/220V, 50/60Hz					
Cooling capacity	kcal/h (* 1)	2,000	2,500	3,150	4,000	5,000	6,300
		7,900	9,900	12,500	15,900	19,900	25,000
	kW	(* 1)	2.3	2.9	3.7	4.7	7.3
		(* 2)	2.2	2.8	3.6	4.5	7.1
Heating capacity	kcal/h	2,200	2,800	3,400	4,300	5,400	6,900
	Btu/h	8,500	10,900	13,600	17,000	21,500	27,300
	kW	2.5	3.2	4.0	5.0	6.3	8.0
Casing		White					
Air flow rate (Hi/Lo)	m ³ /min	7.5/4.5	8/5	9/5.5	12/9	15/12	19/14
	cfm	265/159	282/177	318/194	424/318	530/424	671/494
Sound level (Hi/Lo) (220V-240V)	dB(A)	35/29	36/29	37/29	39/34	42/36	46/39
Dimensions (H×W×D)	mm	290×795×230	290×795×230	290×795×230	290×1,050×230	290×1,050×230	290×1,050×230
Machine weight	kg	11.0	11.0	11.0	14.0	14.0	14.0
Piping connections	Liquid(Flare)mm	φ 6.4	φ 6.4	φ 6.4	φ 6.4	φ 6.4	φ 9.5
	Gas(Flare)mm	φ 12.7	φ 12.7	φ 12.7	φ 12.7	φ 12.7	φ 15.9
	Drain piping	VP13 (External Dia, 18/Internal Dia, 14)					

Note : Specifications are based on the following conditions;
•Cooling : (* 1) Indoor temp. of 27°CDB, 19.5°CWB, and outdoor temp. of 35.0 °CDB.
(* 2) Indoor temp. of 27°CDB, 19.0°CWB, and outdoor temp. of 35.0 °CDB.
•Heating : Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
•Equivalent piping length : 7.5m
•Level difference : 0m
•Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See ENGINEERING DATA for detail.)
•Sound level : Anechoic chamber conversion value, measured under JISB8616 conditions.
During actual operation, these values are normally somewhat higher as a result of ambient conditions.

INDOOR UNITS

Floor Standing Type/ Concealed Floor Standing Type



FXLQ



FXNQ

MODEL		FXLQ20MVE	FXLQ25MVE	FXLQ32MVE	FXLQ40MVE	FXLQ50MVE	FXLQ63MVE
		FXNQ20MVE	FXNQ25MVE	FXNQ32MVE	FXNQ40MVE	FXNQ50MVE	FXNQ63MVE
Power supply		1 phase, 220-240V/220V, 50/60Hz					
Cooling capacity	kcal/h (* 1)	2,000	2,500	3,150	4,000	5,000	6,300
		7,900	9,900	12,500	15,900	19,900	25,000
	kW	(* 1)	2.3	2.9	3.7	4.7	7.3
		(* 2)	2.2	2.8	3.6	4.5	7.1
Heating capacity	kcal/h	2,200	2,800	3,400	4,300	5,400	6,900
	Btu/h	8,500	10,900	13,600	17,000	21,500	27,300
	kW	2.5	3.2	4.0	5.0	6.3	8.0
Casing		FXLQ:Ivory white / FXNQ:Galvanized steel plate					
Air flow rate (Hi/Lo)	m ³ /min	7/6	7/6	8/6	11/8.5	14/11	16/12
	cfm	247/212	247/212	282/212	388/300	494/388	565/424
Sound level (Hi/Lo)	dB(A)	220V	35/32	35/32	35/32	38/33	39/34
		240V	37/34	37/34	37/34	40/35	41/36
Dimensions (H×W×D)	mm	FXLQ	600×1,000×222	600×1,000×222	600×1,140×222	600×1,140×222	600×1,420×222
		FXNQ	610×930×220	610×930×220	610×1,070×220	610×1,070×220	610×1,350×220
Machine weight	kg	FXLQ	25.0	25.0	30.0	30.0	36.0
		FXNQ	19.0	19.0	23.0	23.0	27.0
Piping connections	Liquid(Flare)mm	φ 6.4	φ 6.4	φ 6.4	φ 6.4	φ 6.4	φ 9.5
		φ 12.7	φ 12.7	φ 12.7	φ 12.7	φ 12.7	φ 15.9
	Drain piping	φ 21O.D.					

Note : Specifications are based on the following conditions ;
•Cooling : (* 1) Indoor temp. of 27°CDB, 19.5°CWB, and outdoor temp. of 35.0 °CDB.
(* 2) Indoor temp. of 27°CDB, 19.0°CWB, and outdoor temp. of 35.0 °CDB.
•Heating : Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
•Equivalent piping length : 7.5m
•Level difference : 0m
•Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See ENGINEERING DATA for detail.)
•Sound level : Anechoic chamber conversion value, measured at a point 1.5 m in front of the unit at a height of 1.5 m.
During actual operation, these values are normally somewhat higher as a result of ambient conditions.



OUTDOOR UNITS

Heat Pump Type

MODEL		RXYQ5MY1B	RXYQ8 MY1B	RXYQ10MY1B	RXYQ12MY1B	RXYQ14MY1B	RXYQ16 MY1B	
Power supply		3 phase, 380-415V, 50Hz						
Cooling capacity	kcal/h (* 1)	12,500	20,000	25,000	30,000	35,500	40,000	
	Btu/h (* 1)	49,500	78,900	98,700	118,000	141,000	157,000	
	kW	(* 1)	14.5	23.1	28.9	34.6	41.3	45.9
		(* 2)	14.0	22.4	28.0	33.5	40.0	44.5
Heating capacity (* 3)	kcal/h	13,800	21,500	27,000	32,300	38,700	43,000	
	Btu/h	54,600	85,400	108,000	128,000	154,000	171,000	
	kW	16.0	25.0	31.5	37.5	45.0	50.0	
Capacity control	%	24-100	14-100	14-100	14-100	10-100	10-100	
Casing color		Ivory white (5Y7.5/1)						
Compressor		Hermetically sealed scroll type						
	Motor output kW	3.2×1	(1.2+4.5)×1	(2.7+4.5)×1	(4.2+4.5)×1	(2.0+4.5+4.5)×1	(3.0+4.5+4.5)×1	
Air flow rate	m³/min	75	175	180	210	210	210	
Dimensions(H×W×D)	mm	1,600×635×765	1,600×930×765		1,600×1,240×765			
Machine weight	kg	160	230	230	260	300	300	
Sound level(380V) (* 4)	dB(A)	54	57	58	60	60	60	
Refrigerant		R410A						
Refrigerant charge	kg	5.6	8.6	9.6	11.4	12.9	14.4	
Refrigerant oil		Synthetic (ether) oil						
Refrigerant oil charge	ℓ	1.2	1.9+1.6	1.9+1.6	1.9+1.6	1.9+1.6+1.6	1.9+1.6+1.6	
Piping connections	L i q u i d mm	φ 9.5 (Flare)	φ 9.5 (Flare)	φ 9.5 (Flare)	φ 12.7 (Flare)	φ 12.7 (Flare)	φ 12.7 (Flare)	
	Gas mm	φ 15.9 (Flare)	φ 19.1*(Brazing)	φ 22.2 (Brazing)	φ 28.6 (Brazing)	φ 28.6 (Brazing)	φ 28.6 (Brazing)	
	Oil mm	—	—	—	—	—	—	

MODEL		RXYQ18 MY1B RXYQ20MY1B RXYQ22MY1B RXYQ24MY1B RXYQ26 MY1B RXYQ28 MY1B RXYQ30MY1B RXYQ32MY1B															
		RXYQ8 MY1B RXYQ10MY1B		RXYQ10MY1B RXYQ10MY1B		RXYQ10MY1B RXYQ12MY1B		RXYQ10MY1B RXYQ14MY1B		RXYQ10MY1B RXYQ16 MY1B		RXYQ12MY1B RXYQ16 MY1B		RXYQ14MY1B RXYQ16 MY1B		RXYQ16 MY1B RXYQ16 MY1B	
Power supply		3 phase, 380-415V, 50Hz															
Cooling capacity	kcal/h (* 1)		45,000	50,000	55,000	60,500	65,000	70,000	75,500	80,000							
	Btu/h (* 1)		178,000	197,000	217,000	240,000	256,000	275,000	298,000	314,000							
	kW	(* 1)	52.0	57.8	63.5	70.2	74.9	80.5	87.2	91.9							
(* 2)		50.4	56.0	61.5	68.0	72.5	78.0	84.5	89.0								
Heating capacity (* 3)	kcal/h		48,500	54,000	59,300	65,700	70,000	75,300	81,700	86,000							
	Btu/h		193,000	216,000	236,000	262,000	279,000	299,000	325,000	342,000							
	kW		56.5	63.0	69.0	76.5	81.5	87.5	95.0	100.0							
Capacity control	%		7-100	7-100	7-100	6-100	6-100	6-100	5-100	5-100							
Casing color		Ivory white (5Y7.5/1)															
Compressor		Hermetically sealed scroll type															
		Motor output kW		(1.2+4.5)+(2.7+4.5) (2.7+4.5)×2 (2.7+4.5)+(4.2+4.5) (2.7+4.5)+(2.0+4.5+4.5) (2.7+4.5)+(3.0+4.5+4.5) (4.2+4.5)+(3.0+4.5+4.5) (2.0+4.5+4.5)+(3.0+4.5+4.5) (3.0+4.5+4.5)+(3.0+4.5+4.5)													
Air flow rate	m³/min		175+180	180+180	180+210	180+210	180+210	180+210	210+210	210+210	210+210						
Dimensions(H×W×D)	mm		(1,600×930×765)+(1,600×930×765)				(1,600×930×765)+(1,600×1,240×765)				(1,600×1,240×765)+(1,600×1,240×765)						
Machine weight	kg		230+230	230+230	230+260	230+300	230+300	260+300	300+300	300+300							
Sound level(380V) (* 4)	dB(A)		61	61	62	62	62	63	63	63							
Refrigerant		R410A															
Refrigerant charge	kg		8.6+9.6	9.6+9.6	9.6+11.4	9.6+12.9	9.6+14.4	11.4+14.4	12.9+14.4	14.4+14.4							
Refrigerant oil		Synthetic (ether) oil															
Refrigerant oil charge	ℓ		(1.9+1.6)+(1.9+1.6)				(1.9+1.6)+(1.9+1.6+1.6)				(1.9+1.6+1.6)+(1.9+1.6+1.6)						
Piping connections	L i q u i d mm		φ 15.9 (Flare)	φ 15.9 (Flare)	φ 15.9 (Flare)	φ 15.9 (Flare)	φ 19.1*(Brazing)	φ 19.1*(Brazing)	φ 19.1*(Brazing)	φ 19.1*(Brazing)	φ 19.1*(Brazing)						
	Gas mm		φ 28.6 (Brazing)	φ 28.6 (Brazing)	φ 28.6 (Brazing)	φ 34.9 (Brazing)	φ 34.9 (Brazing)	φ 34.9 (Brazing)	φ 34.9 (Brazing)	φ 34.9 (Brazing)	φ 34.9 (Brazing)						
	Oil mm		φ 6.4 (Flare)	φ 6.4 (Flare)	φ 6.4 (Flare)	φ 6.4 (Flare)	φ 6.4 (Flare)	φ 6.4 (Flare)	φ 6.4 (Flare)	φ 6.4 (Flare)	φ 6.4 (Flare)						

Note : Specifications are based on the following conditions:
•Cooling : (* 1) Indoor temp. of 27CDB, 19.5°CWB, and outdoor temp. of 35.0 °CDB.
(* 2) Indoor temp. of 27CDB, 19.0°CWB, and outdoor temp. of 35.0 °CDB.
•Heating : (* 3) Indoor temp. of 20CDB, and outdoor temp. of 7°CDB, 6°CWB.
•(* 1)(* 2)(* 3) Eq uivalent piping length : Heat pump type 7.5m, level difference 0m.
Heat recovery type 7.5m, level difference 0m.
•Sound level : (* 4) Anechoic chamber conversion value, measured at a point 1 m in front of the unit at a height of 1.5 m.
During actual operation, these values are normally somewhat higher as a result of ambient conditions.
*Use C1220T-1/2H for over φ 19.1

OUTDOOR UNITS

Heat Pump Type

		RXYQ34MY1B	RXYQ36 MY1B	RXYQ38 MY1B	RXYQ40MY1B	RXYQ42MY1B	RXYQ44MY1B	RXYQ46 MY1B	RXYQ48 MY1B	
MODEL	Constituent Model	RXYQ10MY1B	RXYQ10MY1B	RXYQ10MY1B	RXYQ10MY1B	RXYQ10MY1B	RXYQ12MY1B	RXYQ14MY1B	RXYQ16 MY1B	
		RXYQ10MY1B	RXYQ10MY1B	RXYQ12MY1B	RXYQ14MY1B	RXYQ16 MY1B	RXYQ16 MY1B	RXYQ16 MY1B	RXYQ16 MY1B	
		RXYQ14MY1B	RXYQ16 MY1B	RXYQ16 MY1B	RXYQ16 MY1B	RXYQ16 MY1B	RXYQ16 MY1B	RXYQ16 MY1B	RXYQ16 MY1B	
Power supply		3 phase, 380-415V, 50Hz								
Cooling capacity	kcal/h (* 1)		85,500	90,000	95,000	101,000	105,000	110,000	116,000	120,000
	Btu/h (* 1)		338,000	354,000	374,000	397,000	413,000	432,000	455,000	471,000
	kW	(* 1)	99.1	104	109	117	121	127	133	138
		(* 2)	96.0	101	106	113	117	123	129	134
Heating capacity (* 3)	kcal/h		92,700	97,000	102,000	109,000	113,000	118,000	125,000	129,000
	Btu/h		370,000	387,000	407,000	433,000	450,000	470,000	496,000	513,000
	kW		108	113	119	127	132	138	145	150
Capacity control	%		4-100	4-100	4-100	4-100	4-100	4-100	3-100	3-100
Casing color		Ivory white (5Y7.5/1)								
Compressor		Hermetically sealed scroll type								
	Motor output kW	(2.7+4.5)+(2.7+4.5) (2.0+4.5+4.5)	(2.7+4.5)+(2.7+4.5) (3.0+4.5+4.5)	(2.7+4.5)+(4.2+4.5) (3.0+4.5+4.5)	(2.7+4.5)+(2.0+4.5+4.5) (3.0+4.5+4.5)	(2.7+4.5)+ (3.0+4.5+4.5)×2	(4.2+4.5)+ (3.0+4.5+4.5)×2	(2.0+4.5+4.5)+ (3.0+4.5+4.5)×2	(3.0+4.5+4.5)×3	
Air flow rate	m³/min	180+180+210	180+180+210	180+210+210	180+210+210	180+210+210	210+210+210	210+210+210	210+210+210	
Dimensions(H×W×D)	mm	(1,600×930×765)+(1,600×930×765)+ (1,600×1,240×765)		(1,600×930×765)+(1,600×1,240×765)+ (1,600×1,240×765)		(1,600×1,240×765)+(1,600×1,240×765)+ (1,600×1,240×765)		(1,600×1,240×765)+(1,600×1,240×765)+ (1,600×1,240×765)		
Machine weight	kg	230+230+300	230+230+300	230+260+300	230+300+300	230+300+300	260+300+300	300+300+300	300+300+300	
Sound level(380V) (* 4)	dB(A)	64	64	64	64	64	65	65	65	
Refrigerant		R410A								
Refrigerant charge	kg	9.6+9.6+12.9	9.6+9.6+14.4	9.6+11.4+14.4	9.6+12.9+14.4	9.6+14.4+14.4	11.4+14.4+14.4	12.9+14.4+14.4	14.4+14.4+14.4	
Refrigerant oil		Synthetic (ether) oil								
Refrigerant oil charge	ℓ	(1.9+1.6)+(1.9+1.6)+(1.9+1.6+1.6)			(1.9+1.6)+(1.9+1.6+1.6)+(1.9+1.6+1.6)			(1.9+1.6+1.6)+(1.9+1.6+1.6)+(1.9+1.6+1.6)		
Piping connections	L i q u i d mm	φ19.1*(Brazing)	φ19.1*(Brazing)	φ19.1*(Brazing)	φ19.1*(Brazing)	φ19.1*(Brazing)	φ19.1*(Brazing)	φ19.1*(Brazing)	φ19.1*(Brazing)	
	Gas mm	φ34.9 (Brazing)	φ41.3 (Brazing)	φ41.3 (Brazing)	φ41.3 (Brazing)	φ41.3 (Brazing)	φ41.3 (Brazing)	φ41.3 (Brazing)	φ41.3 (Brazing)	
	Oil mm	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	

Heat Rec overy Type

MODEL		REYQ8 MY1B	REYQ10MY1B	REYQ12MY1B	REYQ14MY1B	REYQ16 MY1B
Power supply		3 phase, 380-415V , 50Hz				
Cooling capacity	kcal/h (* 1)	20,000	25,000	30,000	35,500	40,000
	Btu/h (* 1)	78,900	98,700	118,000	141,000	157,000
	kW	(* 1)	23.1	28.9	34.6	41.3
(* 2)		22.4	28.0	33.5	40.0	44.5
Heating capacity (* 3)	kcal/h	21,500	27,000	32,300	38,700	43,000
	Btu/h	85,400	108,000	128,000	154,000	171,000
	kW	25.0	31.5	37.5	45.0	50.0
Capacity control	%	14-100	14-100	14-100	10-100	10-100
Casing color		Ivory white(5Y7.5/1)				
Compressor		Hermetically sealed scroll type				
	Motor output kW	(1.2+4.5)×1	(2.7+4.5)×1	(4.2+4.5)×1	(2.0+4.5+4.5)×1	(3.0+4.5+4.5)×1
Air flow rate	m³/min	175	180	210	210	210
Dimensions(H×W×D)	mm	1,600×930×765			1,600×1,240×765	
Sound level(380V) (* 4)	dB(A)	57	58	60	60	60
Refrigerant		R410A				
Refrigerant oil		Synthetic (ether) oil				
Refrigerant oil charge	ℓ	1.9+1.6	1.9+1.6	1.9+1.6	1.9+1.6+1.6	1.9+1.6+1.6
Piping connections	Li q u i d mm	φ 9.5 (Flare)	φ 9.5 (Flare)	φ 12.7 (Flare)	φ 12.7 (Flare)	φ 12.7 (Flare)
	Suction gas mm	φ19.1*(Brazing)	φ 22.2 (Brazing)	φ 28.6 (Brazing)	φ 28.6 (Brazing)	φ 28.6 (Brazing)
	Discharge gas mm	φ15.9 (Flare)	φ19.1*(Brazing)	φ19.1*(Brazing)	φ 22.2 (Brazing)	φ 22.2 (Brazing)
	Oil mm	—	—	—	—	—



OUTDOOR UNITS

Heat Recovery Type

MODEL		REYQ18MY1B		REYQ20MY1B		REYQ22MY1B		REYQ24MY1B		REYQ26MY1B		REYQ28MY1B		REYQ30MY1B		REYQ32MY1B	
		REYQ8MY1B REYQ10MY1B		REYQ10MY1B REYQ10MY1B		REYQ10MY1B REYQ12MY1B		REYQ10MY1B REYQ14MY1B		REYQ10MY1B REYQ16MY1B		REYQ12MY1B REYQ16MY1B		REYQ14MY1B REYQ16MY1B		REYQ16MY1B REYQ16MY1B	
Power supply		3 phase, 380~415V, 50Hz															
Cooling capacity	kcal/h (* 1)		45,000	50,000	55,000	60,500	65,000	70,000	75,500	80,000							
	Btu/h (* 1)		178,000	197,000	217,000	240,000	256,000	275,000	298,000	314,000							
	kW	(* 1)	52.0	57.8	63.5	70.2	74.9	80.5	87.2	91.9							
(* 2)		50.4	56.0	61.5	68.0	72.5	78.0	84.5	89.0								
Heating capacity (* 3)	kcal/h		48,500	54,000	59,300	65,700	70,000	75,300	81,700	86,000							
	Btu/h		193,000	216,000	236,000	262,000	279,000	299,000	325,000	342,000							
	kW		56.5	63.0	69.0	76.5	81.5	87.5	95.0	100.0							
Capacity control	%		7-100	7-100	7-100	6-100	6-100	6-100	5-100	5-100							
Casing color		Ivory white(5Y7.5/1)															
Compressor		Hermetically sealed scroll type															
		Motor output kW	(1.2+4.5)+ (2.7+4.5)	(2.7+4.5)×2	(2.7+4.5)+ (4.2+4.5)	(2.7+4.5)+ (2.0+4.5+4.5)	(2.7+4.5)+ (3.0+4.5+4.5)	(4.2+4.5)+ (3.0+4.5+4.5)	(2.0+4.5+4.5)+ (3.0+4.5+4.5)	(3.0+4.5+4.5)×2							
Air flow rate	m ³ /min		175+180	180+180	180+210	180+210	180+210	210+210	210+210	210+210							
Dimensions(H×W×D)	mm		(1,600×930×765)+(1,600×930×765)				(1,600×930×765)+(1,600×1,240×765)				(1,600×1,240×765)+(1,600×1,240×765)						
Sound level(380V) (* 4)	dB(A)		61	61	62	62	62	63	63	63							
Refrigerant		R410A															
Refrigerant oil		Synthetic (ether) oil															
Refrigerant oil charge	ℓ		(1.9+1.6)+(1.9+1.6)				(1.9+1.6)+(1.9+1.6+1.6)				(1.9+1.6+1.6)+(1.9+1.6+1.6)						
Piping connections	Liquid mm		φ15.9 (Flare)	φ15.9 (Flare)	φ15.9 (Flare)	φ15.9 (Flare)	φ19.1*(Brazing)	φ19.1*(Brazing)	φ19.1*(Brazing)	φ19.1*(Brazing)	φ19.1*(Brazing)	φ19.1*(Brazing)	φ19.1*(Brazing)				
	Suction gas mm		φ28.6 (Brazing)	φ28.6 (Brazing)	φ28.6 (Brazing)	φ34.9 (Brazing)	φ34.9 (Brazing)	φ34.9 (Brazing)	φ34.9 (Brazing)	φ34.9 (Brazing)	φ34.9 (Brazing)	φ34.9 (Brazing)	φ34.9 (Brazing)				
	Discharge gas mm		φ22.2 (Brazing)	φ28.6 (Brazing)	φ28.6 (Brazing)	φ28.6 (Brazing)	φ28.6 (Brazing)	φ28.6 (Brazing)	φ28.6 (Brazing)	φ28.6 (Brazing)	φ28.6 (Brazing)	φ28.6 (Brazing)	φ28.6 (Brazing)				
	Oil mm		φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)			

MODEL			Constituent Model	REYQ34MY1B	REYQ36 MY1B	REYQ38 MY1B	REYQ40MY1B	REYQ42MY1B	REYQ44MY1B	REYQ46 MY1B	REYQ48 MY1B
				REYQ10MY1B	REYQ10MY1B	REYQ10MY1B	REYQ10MY1B	REYQ10MY1B	REYQ12MY1B	REYQ14MY1B	REYQ16 MY1B
				REYQ10MY1B	REYQ10MY1B	REYQ12MY1B	REYQ14MY1B	REYQ16 MY1B	REYQ16 MY1B	REYQ16 MY1B	REYQ16 MY1B
				REYQ14MY1B	REYQ16 MY1B	REYQ16 MY1B	REYQ16 MY1B	REYQ16 MY1B	REYQ16 MY1B	REYQ16 MY1B	REYQ16 MY1B
Power supply			3 phase, 380-415V, 50Hz								
Cooling capacity	kcal/h (* 1)		85,500	90,000	95,000	101,000	105,000	110,000	116,000	120,000	
	Btu/h (* 1)		338,000	354,000	374,000	397,000	413,000	432,000	455,000	471,000	
	kW	(* 1)	99.1	104	109	117	121	127	133	138	
(* 2)		96.0	101	106	113	117	123	129	134		
Heating capacity (* 3)	kcal/h		92,700	97,000	102,000	109,000	113,000	118,000	125,000	129,000	
	Btu/h		370,000	387,000	407,000	433,000	450,000	470,000	496,000	513,000	
	kW		108.0	113.0	119.0	127	132	138	145	150	
Capacity control	%		4-100	4-100	4-100	4-100	4-100	4-100	3-100	3-100	
Casing color			Ivory white(5Y7.5/1)								
Compressor			Hermetically sealed scroll type								
	Motor output kW		(2.7+4.5)×2+ (2.0+4.5+4.5)	(2.7+4.5)×2+ (3.0+4.5+4.5)	(2.7+4.5)+(4.2+4.5) (3.0+4.5+4.5)	(2.7+4.5)+(2.0+4.5+4.5) (3.0+4.5+4.5)	(2.7+4.5)+ (3.0+4.5+4.5)×2	(4.2+4.5)+ (3.0+4.5+4.5)×2	(2.0+4.5+4.5)+ (3.0+4.5+4.5)×2	(3.0+4.5+4.5)×3	
Air flow rate	m³/min		180+180+210	180+180+210	180+210+210	180+210+210	180+210+210	210+210+210	210+210+210	210+210+210	
Dimensions(H×W×D)	mm		(1,600×930×765)+(1,600×930×765)+ (1,600×1,240×765)		(1,600×930×765)+(1,600×1,240×765)+ (1,600×1,240×765)		(1,600×1,240×765)+(1,600×1,240×765)+ (1,600×1,240×765)				
Sound level(380V) (* 4)	dB(A)		64	64	64	64	64	65	65	65	
Refrigerant			R410A								
Refrigerant oil			Synthetic (ether) oil								
Refrigerant oil charge	ℓ		(1.9+1.6)+(1.9+1.6)+(1.9+1.6+1.6)			(1.9+1.6)+(1.9+1.6+1.6)+(1.9+1.6+1.6)			(1.9+1.6+1.6)+(1.9+1.6+1.6)+(1.9+1.6+1.6)		
Piping connections	L i q u i d mm		φ19.1*(Brazing)	φ19.1*(Brazing)	φ19.1*(Brazing)	φ19.1*(Brazing)	φ19.1*(Brazing)	φ19.1*(Brazing)	φ19.1*(Brazing)	φ19.1*(Brazing)	
	Suction gas mm		φ34.9 (Brazing)	φ41.3 (Brazing)	φ41.3 (Brazing)	φ41.3 (Brazing)	φ41.3 (Brazing)	φ41.3 (Brazing)	φ41.3 (Brazing)	φ41.3 (Brazing)	
	Discharge gas mm		φ28.6 (Brazing)	φ28.6 (Brazing)	φ34.9 (Brazing)	φ34.9 (Brazing)	φ34.9 (Brazing)	φ34.9 (Brazing)	φ34.9 (Brazing)	φ34.9 (Brazing)	
	Oil mm		φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	φ6.4 (Flare)	

Note : Specifications are based on the following conditions;

•Cooling : (* 1) Indoor temp. of 27CDB, 19.5°CWB, and outdoor temp. of 35.0 °CDB.
(* 2) Indoor temp. of 27CDB, 19.0°CWB, and outdoor temp. of 35.0 °CDB.

•Heating :(* 3) Indoor temp. of 20CDB, and outdoor temp. of 7°CDB, 6°CWB.

•(* 1)(* 2)(* 3) Equivalent piping length : Heat pump type 7.5m, level difference 0m.
Heat recovery type 7.5m, level difference 0m.

•Sound level : (* 4) Anechoic chamber conversion value, measured at a point 1 m in front of the unit at a height of 1.5 m.
During actual operation, these values are normally somewhat higher as a result of ambient conditions.

•Use C1220T-1/2H for over φ19.1

BS UNITS for Heat Recovery



MODEL		BSVQ100MV1		BSVQ160MV1		BSVQ250MV1	
Power supply		V1: 1 phase, 220-240V, 50Hz					
Total capacity of connectable indoor units		100 or less		More than 100 but 160 or less		160 or more but less than 250	
Casing		Galvanized steel plate					
Dimensions (HxWxD)		mm		185x310x280		185x590x435	
Piping connections	Indoor Unit	L i q u i d mm		φ 9.5 (Flare)		φ 9.5 (Flare)	
		Gas mm		φ 15.9 (Flare)		φ 15.9 (Flare)	
	Outdoor Unit	L i q u i d mm		φ 9.5 (Flare)		φ 9.5 (Flare)	
		Suction gas mm		φ 15.9 (Flare)		φ 15.9 (Flare)	
		Discharge gas mm		φ 12.7 (Flare)		φ 12.7 (Flare)	
Machine weight		kg		9.0		11.0	
						21.0	

Option List

INDOOR UNITS

Ceiling mounted cassette type (Double flow type)

No.	Item	Type	FXCQ20M FXCQ25M FXCQ32M	FXCQ40M	FXCQ50M	FXCQ63M	FXCQ80M	FXCQ125M
1	*1 Decoration Panel		BYBC32GJW1 BYBC32G-W1	BYBC50GJW1 BYBC50G-W1	BYBC63GJW1 BYBC63G-W1	BYBC125GJW1 BYBC125G-W1		
2	Filter related	*2 High efficiency filter 65% *2 High efficiency filter 90% Filter chamber bottom suction Long life replacement filter	KAFJ532G36 KAFJ533G36 KDDFJ53G36 KAFJ531G36	KAFJ532G56 KAFJ533G56 KDDFJ53G56 KAFJ531G56	KAFJ532G80 KAFJ533G80 KDDFJ53G80 KAFJ531G80	KAFJ532G160 KAFJ533G160 KDDFJ53G160 KAFJ531G160		

Note: *1 BYBC-GJW1: Without origin, BYBC-G-W1: With origin
*2 Filter chamber is required if installing high efficiency filter.

Ceiling mounted super cassette type (Multi flow type)

No.	Item		Type	FXFQ25M	FXFQ32M	FXFQ40M	FXFQ50M	FXFQ63M	FXFQ80M	FXFQ100M	FXFQ125M
1	Decoration Panel			BYCP125D-W1							
2	Sealing Member of air discharge outlet			KDBH55D160W							
3	Panel spacer			KDBJ55K160W							
4	Filter related	High efficiency filter unit 65%		KAF P556D80						KAF P556D160	
		High efficiency filter unit 90%		KAF P557D80						KAF P557D160	
		Replacement high efficiency filter 65%		KAF J552K80						KAF J552K160	
		Replacement high efficiency filter 90%		KAF J553K80						KAF J553K160	
		Filter chamber		KDDF P55D160							
		Long life replacement filter	Non-woven type	KAF J551C160							
		Ultra long-life filter		KAF P55D160							
5	Fresh air intake kit	Replacement ultra long-life filter		KAF J55K160H							
		Chamber type	Without T shape and fan	KDDP55D160							
			With T shape without fan	KDDP55D160K							
		Direct installation type		KDDJ55X160							
6	Branch duct chamber			KDP55D80						KDP55D160	
7	Chamber connection kit			KKSJ55K160							
8	Insulation kit for high humidity			KDT-55D80						KDT-55D160	

600 x 600 multi flow ceiling mounted cassette type

No.	Item	Type	FXZQ20M	FXZQ25M	FXZQ32M	FXZQ40M	FXZQ50M
1	Decoration panel		BYFQ60BWM				
2	Sealing member of air discharge outlet		KDBH44B60				
3	Panel spacer		KDBQ44B60				
4	Replacement long-life filter		KAFQ441B60				
5	Fresh air intake kit	Direct installation type	KDDQ44X60				

Ceiling mounted cassette corner type

No.	Item	Type	FXKQ25M,FXKQ32M,FXKQ40M	FXKQ63M
1	Panel related	Decoration Panel Panel Spacer	BYK45FJW1 KPBJ52F56W	BYK71FJW1 KPBJ52F80W
2	Air inlet and air discharge outlet	Long life replacement filter Air discharge grill Air discharge blind panel	KAFJ521F56 K-HV7AW KDBJ52F56W KFDJ52F56	KAFJ521F80 K-HV9AW KDBJ52F80W KFDJ52F80



INDOOR UNITS

Ceiling mounted built-in type

No.	Type			FXSQ20M FXSQ25M FXSQ32M	FXSQ40M FXSQ50M	FXSQ63M	FXSQ80M FXSQ100M	FXSQ125M
1	Panel related	Decoration Panel		BYBS32DJWJ	BYBS45DJWJ	BYBS71DJWJ	BYBS125DJWJ	
		Access panel		KTBJ25K36W	KTBJ25K56W	KTBJ25K80W	KTBJ25K160W	
2	★1 Auxiliary electric heater	Model	240V/220V	KEA25K32VE	KEA25K50VE	KEA25K63VE	KEA25K100VE	KEA25K125VE
		Capacity	kW	0.75	1.2	1.4	2.1	2.8
3	Filter related	★2 High efficiency filter 65%		KAF J252L 36	KAF J252L 56	KAF J252L 80	KAF J252L 160	
		★2 High efficiency filter 90%		KAF J253L 36	KAF J253L 56	KAF J253L 80	KAF J253L 160	
		Long life replacement filter		KAF J251K36	KAF J251K56	KAF J251K80	KAF J251K160	
		Filter chamber	For bottom suction	KAJ25L 36D	KAJ25L 56D	KAJ25L 80D	KAJ25L 160D	
			For rear suction	KAJ25L 36B	KAJ25L 56B	KAJ25L 80B	KAJ25L 160B	
4	Air inlet and air discharge outlet related	Air suction canvas		KSA-25K36	KSA-25K56	KSA-25K80	KSA-25K160	
		Screening door		KBBJ25K36	KBBJ25K56	KBBJ25K80	KBBJ25K160	
		Air suction flange		KDJ2507K36	KDJ2507K56	KDJ2507K80	KDJ2507K160	
		Air discharge adaptor		KDAJ25K36	KDAJ25K56	KDAJ25K71	KDAJ25K140	
5	Natural evaporating pan type humidifier ★1			KNM25K32V1	KNM25K50V1	KNM25K63V1	KNM25K125V1	

Note: ★1 One adaptor for wiring (KRP1B61) per indoor unit is required if installing an electric heater or a natural evaporating pan type humidifier. An electric heater cannot be used for VRV system cooling only.
★2 If installing a high filter in the ceiling mounted built-in type, an assembly chamber for either bottom or rear suction is required.

Ceiling mounted duct type

No.	Item		Type	FXMQ40M	FXMQ50M	FXMQ63M	FXMQ80M	FXMQ100M	FXMQ125M	FXMQ200M	FXMQ250M
1	Drain pump kit			KDU-30L125VE						KDU30L250VE	
2	High efficiency filter	65%		KAFJ302L71		KAFJ302L140				KAFJ372L280	
		90%		KAFJ303L71		KAFJ303L140				KAFJ373L280	
3	Filter chamber			KDDJ30L71		KDDJ30L140				KDJ3705L280	
4	Long life replacement filter			KAFJ301L71		KAFJ301L140				KAFJ371L280	

Ceiling suspended type

No.	Item		Type	FXHQ32M	FXHQ63M	FXHQ100M
1	Drain pump kit			KDU50M60VE	KDU50M125VE	
2	Replacement long-life filter (Resin net)			KAFJ501D56	KAFJ501D80	KAFJ501D112
3	L-type piping kit (for upward direction)			KHPF5M35	KHPF5M63	

Wall mounted type

No.	Item		Type	FXAQ20M	FXAQ25M	FXAQ32M	FXAQ40M	FXAQ50M	FXAQ63M
1	Drain pump kit			K-KDU572BVE					

Floor standing type

No.	Item		Type	FXLQ20M	FXLQ25M	FXLQ32M	FXLQ40M	FXLQ50M	FXLQ63M
1	Long life replacement filter			KAFJ361K28		KAFJ361K45		KAFJ361K71	

Concealed floor standing type

No.	Item		Type	FXNQ20M	FXNQ25M	FXNQ32M	FXNQ40M	FXNQ50M	FXNQ63M
1	Long life replacement filter			KAFJ361K28		KAFJ361K45		KAFJ361K71	

OUTDOOR UNITS

Heat Pump Type

No.	Name of Options	RXYQ5MY1B	RXYQ8MY1B RXYQ10MY1B	RXYQ12MY1B RXYQ14MY1B RXYQ16MY1B
1	Cool/Heat Selector	KRC19-26A		
1-1	Fixing box	KJB111A		
2	REFNET header	KHRP26M22H (Max. 4branch) KHRP26M33H (Max. 8branch)		KHRP26M22H (Max. 4branch), KHRP26M33H (Max. 8branch) KHRP26M72H (Max. 8branch)
3	REFNET joint	KHRP26M22T	KHRP26M22T, KHRP26M33T	KHRP26M22T, KHRP26M33T, KHRP26M72T
4	Kit of air discharge duct	KPF26B160	KPF26B280	KPF26B450
5	Central drain pan kit	KWC26B160	KWC26B280	KWC26B450
6	Refrigerant leak detector kit	KFLD26A, KHL D26A		

No.	Name of Options		RXYQ18MY1B RXYQ20MY1B	RXYQ22MY1B RXYQ24MY1B RXYQ26MY1B	RXYQ28MY1B	RXYQ30MY1B RXYQ32MY1B	RXYQ34MY1B RXYQ36MY1B	RXYQ38MY1B	RXYQ40MY1B RXYQ42MY1B	RXYQ44MY1B RXYQ46MY1B RXYQ48MY1B
1	Cool/Heat Selector		KRC19-26A							
1-1	Fixing box		KJB111A							
2	Distributive piping	REFNET header	KHRP26M22H (Max. 4branch), KHRP26M33H (Max. 8branch), KHRP26M72H (Max. 8branch), KHRP26M73H (Max. 8branch)							
		REFNET joint	KHRP26M22T, KHRP26M33T, KHRP26M72T, KHRP26M73T							
		Outdoor unit multi connection piping kit	BHFP22M90				BHFP22M135			
3	Pipe size reducer		KHRP26M73TP, KHRP26M73HP, BHFP22M90P				KHRP26M73TP, KHRP26M73HP, BHFP22M135P			
4	Kit of air discharge duct		KPF26B280×2	KPF26B280 KPF26B450	KPF26B450×2	KPF26B450×2	KPF26B280×2 KPF26B450	KPF26B280 KPF26B450×2	KPF26B280 KPF26B450×2	KPF26B450×3
5	Central drain pan kit		KWC26B280 ×2	KWC26B280 KWC26B450	KWC26B450 ×2	KWC26B450 ×2	KWC26B280 ×2 KWC26B450	KWC26B280 KWC26B450 ×2	KWC26B280 KWC26B450 ×2	KWC26B450 ×3
6	Refrigerant leak detector kit		KFLD26A, KHL D26A							

Heat Recovery Type

No.	Name of Options	REYQ8MY1B REYQ10MY1B	REYQ12MY1B REYQ14MY1B REYQ16MY1B
1	REFNET header	KHRP25M33H (Max. 8branch)	KHRP25M33H (Max. 8branch), KHRP25M72H (Max. 8branch)
2	REFNET joint	KHRP25M22T, KHRP25M33T	KHRP25M22T, KHRP25M33T, KHRP25M72T
3	Pipe size reducer	—	KHRP25M72TP, KHRP25M72HP
4	Kit of air discharge duct	KPF26B280	KPF26B450
5	Central drain pan kit	KWC26B280	KWC26B450
6	Refrigerant leak detector kit	KFLD26A, KHL D26A	

No.	Name of Options		REYQ18MY1B REYQ20MY1B	REYQ22MY1B REYQ24MY1B REYQ26MY1B	REYQ28MY1B	REYQ30MY1B REYQ32MY1B	REYQ34MY1B REYQ36MY1B	REYQ38MY1B	REYQ40MY1B REYQ42MY1B	REYQ44MY1B REYQ46MY1B REYQ48MY1B
1	REFNET header		KHRP25M33H (Max. 8branch), KHRP25M72H (Max. 8branch), KHRP25M73H (Max. 8branch)							
2	REFNET joint		KHRP25M22T, KHRP25M33T, KHRP25M72T, KHRP25M73T							
3	Outdoor unit multi connection piping kit		BHFP26M90				BHFP26M135			
4	Pipe size reducer		KHRP25M72TP, KHRP25M72HP, KHRP26M73TP, KHRP26M73HP, BHFP26M90P				KHRP25M72TP, KHRP25M72HP, KHRP26M73TP, KHRP26M73HP, BHFP26M135P			
5	Kit of air discharge duct		KPF26B280×2	KPF26B280 KPF26B450	KPF26B450×2	KPF26B450×2	KPF26B280×2 KPF26B450	KPF26B280 KPF26B450×2	KPF26B280 KPF26B450×2	KPF26B450×3
6	Central drain pan kit		KWC26B280 ×2	KWC26B280 KWC26B450	KWC26B450 ×2	KWC26B450 ×2	KWC26B280 ×2 KWC26B450	KWC26B280 KWC26B450 ×2	KWC26B280 KWC26B450 ×2	KWC26B450 ×3
7	Refrigerant leak detector kit		KFLD26A, KHL D26A							

For BS Units

No.	Name of Options	BSVQ100MV1	BSVQ160MV1	BSVQ250MV1
1	Cool/Heat selector	KRC19-26A		
2	Fixing box	KJB111A		



CONTROL SYSTEM

Operation c ontrol system optional ac c essories

No.	Type			FXCQ-M	FXFQ-M	FXZQ-M	FXKQ-M	FXSQ-M	FXMQ-M	FXHQ-M	FXAQ-M	FXLQ-M FXNQ-M
1	Remote controller	Wireless	H/P	BRC7C62	BRC7E61W	BRC7E530W	BRC4C61	BRC4C62	BRC4C62	BRC7E63W	BRC7E618	BRC4C62
			C/O	BRC7C67	BRC7E65	BRC7E531W	BRC4C63	BRC4C64	BRC4C64	BRC7E66	BRC7E619	BRC4C64
		Wired		BRC1A61				BRC1A62		BRC1A61		BRC1A62
2	Set back time clock			BRC15A61								
3	Simplified remote controller			—				BRC2A51		—		BRC2A51
4	Remote controller for hotel use			—				BRC3A61		—		BRC3A61
5	Adaptor for wiring			*KRP1B61	*KRP1B59	KRP1B2	KRP1B61			KRP1B3	—	KRP1B61
6-1	Wiring adaptor for electrical appendices (1)			*KRP2A61	*KRP2A62	KRP2A62	KRP2A61			*KRP2A62	*KRP2A61	KRP2A61
6-2	Wiring adaptor for electrical appendices (2)			*KRP4A51	*KRP4A53	KRP4A53	KRP4A51			*KRP4A52	*KRP4A51	KRP4A51
7	Remote sensor			KRCS01-1	—	KRCS01-1	KRCS01-1					
8	Installation box for adaptor PCB☆			Note 2,3 KRP1B96	Note 2,3 KRP1D98	KRP1B101	—	Note 4 KRP4A91	—	Note 3 KRP1C93	Note 2,3 KRP4A93	—
9	Central remote controller			DCS302B61								
9-1	Electrical box with earth terminal (3 blocks)			KJB311A								
10	Unified on/off controller			DCS301B61								
10-1	Electrical box with earth terminal (2 blocks)			KJB212A								
10-2	Noise filter (for electromagnetic interface use only)			KEK26-1								
11	Schedule timer			DST301B61								
12	External control adaptor for outdoor unit (Must be installed on indoor units)			*DTA104A61	*DTA104A62		DTA104A61			*DTA104A62	*DTA104A61	DTA104A61

Note: 1. Installation box ★ is necessary for each adaptor marked ★.
2. Up to 2 adaptors can be fixed for each installation box.

3. Only one installation box can be installed for each indoor unit.
4. Installation box ★ is necessary for second adaptor.

Various PC boards

No.	Part name	Model No.	Function
1	Adaptor for wiring	KRP1B61 KRP1B59 KRP1B3	•PC board when equipped with auxiliary electric heater in the indoor unit.
2	DIII-NET Expander adaptor	DTA109A51	•Up to 1024 units can be centrally controlled in 64 different groups. •Wiring restrictions (max. length : 1000m, total wiring length : 2000m, max. number of branches : 16) apply to each adaptor.

System c onfiguration

No.	Part name		Model No.	Function
1	Central remote controller		DCS302B61	•Up to 64 groups of indoor units(128 units) can be connected, and ON/OFF, temperature setting and monitoring can be accomplished individually or simultaneously. Connectable up to 2 controllers in one system.
2	Unified ON/OFF controller		DCS301B61	•Up to 16 groups of indoor units(128 units) can be turned, ON/OFF individually or simultaneously, and operation and malfunction can be displayed. Can be used in combination with up to 8 controllers.
3	Schedule timer		DST301B61	•Programmed time weekly schedule can be controlled by unified control for up to 64 groups of indoor units (128 units). Can turn units ON/OFF twice per day.
4	Unification adaptor for computerized control		★DCS302A52	•Interface between the central monitoring board and central control units.
5	Interface adaptor for SkyAir-series	For SkyAir, FDYJMF-A, FDY-KA FDYB-KA, FDY-KA, FVY(P)J-A	★DTA102A52	•Adaptors required to connect products other than those of the VRV System to the high-speed DIII-NET communication system adopted for the VRV System. * To use any of the above optional controllers, an appropriate adaptor must be installed on the product unit to be controlled.
6	Central control adaptor kit	For UAT(Y)-K(A),FD-K	★DTA107A55	
7	Wiring adaptor for other air-conditioner		★DTA103A51	
8	DIII-NET Expander Adaptor		DTA109A51	•Up to 1024 units can be centrally controlled in 64 different groups. •Wiring restrictions (max. length : 1,000m, total wiring length : 2,000m, max. number of branches : 16) apply to each adaptor.
9	Mounting plate		KRP4A92	•Fixing plate for DTA109A51

Note: Installation box for ★ adaptor must be procured on site.

CONTROL SYSTEM

Building management system

No.	Part name			Model No.	Function
1	intelligent Touch Controller		Without PPD	DCS601B51	•Air-Conditioning management system that can be controlled by a compact all-in-one unit. PPD: Power Proportional Distribution function New Functions: •Auto cool/heat change-over •Temperature limitation •Multilingual (English, French, German, Spanish, Italian, or Chinese)
			With PPD	DCS601B51 DCS002A51	
1-1	Electrical box with earth terminal (4blocks)			KJB411A	•Wall embedded switch box.
2	intelligent Manager ECO 21	Number of units to be connected	128 units	DAM602A52	•Air conditioner management system (featuring minimized engineering) that can be controlled by personal computers.
			192 units	DAM602A53	
			256 units	DAM602A51	
			512 units	DAM602A51×2	
			768 units	DAM602A51×3	
			1024 units	DAM602A51×4	
3	Communi- cation line	BACnet Gateway		DMS502A51	•Interface unit to allow communications between VRV and BMS. Operation and monitoring of air-conditioning systems through BACnet communication.
4		LONWORKS® Network compatible LON Gateway DMS-IF		DMS504B51	•Interface unit to allow communications between VRV and BMS. Operation and monitoring of air-conditioning systems through LONWORKS® communication.
5		Optional DIII board		DAM411A1	•Expansion kit, installed on the BACnet Gateway (DMS502A51), to provide 3 more DIII-NET communication ports. Not usable independently.
6		Optional DI board		DAM412A1	•Expansion kit, installed on the BACnet Gateway (DMS502A51), to provide 16 more wattmeter pulse input points. Not usable independently.
7	Contact/analog signal	Parallel interface Basic unit		DPF 201A51	•Enables ON/OFF command, operation and display of malfunction; can be used in combination with up to 4 units.
8		Temperature measurement units		DPF 201A52	•Enables temperature measurement output for 4 groups; 0-5VDC.
9		Temperature setting units		DPF 201A53	•Enables temperature setting input for 16 groups; 0-5VDC.
10		Unification adaptor for computerized control		DCS302A52	•Interface between the central monitoring board and central control units.
11-1		Wiring adaptor for electrical appendices (1)		KRP2A61 KRP2A62	•Simultaneously controls air-conditioning control computer and up to 64 groups of indoor units.
11-2		Wiring adaptor for electrical appendices (2)		KRP4A51-53	•To control the group of indoor units collectively, which are connected by the transmission wiring of remote controller.
12		External control adaptor for outdoor unit		DTA104A61 DTA104A62	•Cooling/Heating mode change over. Demand control and Low noise control are available between the plural outdoor units.





HRV

Heat Reclaim Ventilation

The HRV Creates a High-Quality Environment by Interlocking with the Air Conditioner

Daikin's HRV (Heat Reclaim Ventilation) recovers heat energy lost through ventilation and holds down room temperature changes caused by ventilation, thereby maintaining a comfortable and clean environment. This also curbs the load on the air conditioning system and conserves energy. In addition, the HRV is interlocked to Daikin's VRV system, SkyAir and other air conditioning systems and automatically switches over ventilation mode, further increasing the effects of energy conservation. HRV operation has been centralized on the air conditioner remote controller allowing total control over air conditioning and ventilation with a simple configuration.

Daikin air conditioner



- Operating mode signal
- Filter cleaning signal
- Failure detection signal

- ON/ OFF signal
- Cooling/ Heating mode signal
- Set temperature signal
- Ventilation signal
- Humidifier ON/ OFF signal

Indoor unit



L CD remote controller for indoor unit



HRV

New VAM-FA Series

First-class Compactness in the Industry

The use of the originally developed High Efficiency Paper (HEP) element and optimized design of the fan and airflow passages, has enabled the first-class compactness in the industry while maintaining some 28% reduction of air conditioning load as before. The height of the main unit has been reduced by up to 285 mm* and easily fits in limited spaces, such as behind ceilings.

* In case of VAM500FAVE.



First-Class Energy Conservation in the Industry

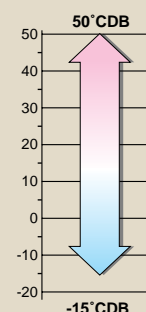
Air Conditioning Load Reduced by Approximately 28 %

1. Approximately 20% by operating in total heat exchange mode (in comparison with normal ventilation fans)
2. Another approximately 6% gained by auto-ventilation mode changeover switching
3. Yet another approximately 2% by pre-cool, pre-heat control

Operation range of outdoor temperatures

Cold climate compatible : Standard operation at temperatures down to -15°C

The new intermittent operation mode is activated when outdoor temperature goes down to -10°C or below, preventing freezing or condensation in the unit. Standard models can now be used in cold climate regions.



HRV specifications

HRV (Heat Reclaim Ventilation)

Models		VAM150FAVE	VAM250FAVE	VAM350FAVE	VAM500FAVE	VAM650FAVE	VAM800FAVE	VAM1000FAVE	VAM1500FAVE	VAM2000FAVE	
Power Supply		VE: 1 phase, 220-240V/220V, 50Hz/60Hz									
Temp. Exchange Efficiency (%) [50Hz/60Hz]	Ultra-High	74/74	72/72	75/75	74/74	74/74	74/74	75/75	75/75	75/75	
	High	74/74	72/72	75/75	74/74	74/74	74/74	75/75	75/75	75/75	
	Low	79/80	77/77	80/81	77/78.5	77/78	76/76	76.5/78	78/78	78/78	
Enthalpy Exchange Efficiency (%) [50Hz/60Hz]	For Heating	Ultra-High	64/64	64/64	65/65	62/62	63/63	65/65	66/66	66/66	
		High	64/64	64/64	65/65	62/62	63/63	65/65	66/66	66/66	
		Low	69/71	68/69	70/71	67/68.5	66/68	67/68	68/71	68/68	70/70
	For Cooling	Ultra-High	58/58	58/58	61/61	58/58	58/58	60/60	61/61	61/61	61/61
		High	58/58	58/58	61/61	58/58	58/58	60/60	61/61	61/61	61/61
		Low	64/66	62/63	67/68	63/65.5	63/65	62/63	63/66	64/64	66/66
Sound Level dB(A) [50Hz/60Hz]	Heat Exchange Mode	Ultra-High	27-28.5/28.5	28-29/29.5	32-34/34.5	33-34.5/34	34.5-35.5/36	36-37/37	36-37/37	39.5-41.5/40.5	40-42.5/41
		High	26-27.5/26.5	26-27/26	31.5-33/32	31.5-33/31	33-34/33	34.5-36/35	35-36/35	38-39/38	38-41/38
		Low	20.5-21.5/19	21-22/19.5	23.5-26/22	24.5-26.5/24	27-28/27	31-32/30	31-32/30	34-36/33	35-37/35
	Bypass Mode	Ultra-High	27-28.5/28	28-29/29	32-34/34.5	33.5-34.5/35	34.5-35.5/35.5	36-37/37	36-37/37	40.5-41.5/40.5	40-42.5/41
		High	26.5-27.5/27	27-28/27	31-32.5/33	32.5-33.5/33	34-35/34	34.5-36/35	35.5-36/35	38-39/38	38-41/38
		Low	20.5-21.5/20	21-22/20.5	24.5-26.5/22	25.5-27.5/24	27-28.5/27	31-33/31	31-32/31	33.5-36/33	35-37/35
Casing		Galvanized steel plate									
Insulation Material		Self-extinguishable polyurethane foam									
Dimensions (H×W×D)	mm	269×760×509		285×812×800		348×988×852		348×988×1,140	710×1,498×852	710×1,498×1,140	
Weight	kg	24		33		48		61	132	158	
Heat Exchange System		Air to air cross flow total heat (Sensible heat+ latent heat) exchange									
Heat Exchange Element Material		Specially processed nonflammable paper									
Air Filter		Multidirectional fibrous fleeces									
Fan	Type	Sirroco fan									
	Air Flow Rate (m³/h) [50Hz/60Hz]	Ultra-High	150/150	250/250	350/350	500/500	650/650	800/800	1,000/1,000	1,500/1,500	2,000/2,000
		High	150/150	250/250	350/350	500/500	650/650	800/800	1,000/1,000	1,500/1,500	2,000/2,000
		Low	110/110	155/145	230/210	350/300	500/440	670/660	870/800	1,200/1,200	1,400/1,400
	External Static Pressure (Pa) [50Hz/60Hz]	Ultra-High	69/98	64/98	98/142	98/147	93/162	137/225	157/196	137/206	137/196
		High	39/54	39/54	70/85	54/54	39/69	98/118	98/108	98/118	78/88
Low		20/24	20/20	25/15	25/20	25/34	49/69	78/69	49/69	59/69	
Motor Output		kW	0.030×2		0.090×2		0.140×2		0.230×2		0.230×4
Connection Duct Diameter		mm	φ 100	φ 150		φ 200		φ 250		φ 350	
Unit ambient condition		-15℃ to + 50℃CDB, 80%RH or less									

Note: 1. Sound level is measured at 1.5m below the center of the body.
2. Air flow rate can be changed over to Low mode or High mode.
3. Sound level is measured in an anechoic chamber.
4. Sound level generally become greater than this value depending on the operating conditions, reflected sound, and peripheral noise.
5. The sound level at the air discharge port is about 8 dB higher than the unit's sound level.
6. Even when the outdoor temperature is below -15°C, the system is operable down to -20°C with the preheater installed at the outdoor air intake side.



R410A VRV System/ Prec autions on

Installation

Prec autions

R410A applies higher pressure than R22 and uses refrigeration oil different from R22. Therefore, piping works and tools are also different from those for R22 refrigerants.

Refrigerant	R22 (Single-component refrigerant)	R410A (Quasi-azeotropic mixture refrigerant)
Refrigeration oil	Mineral oil (Suniso)	Synthetic (ether) oil
Condensing pressure	1.84MPa (18.8kg/cm ²)	2.97MPa (30.3kgf/cm ²)

Refrigerant Piping Materials

REFNET piping materials

■ Branch pipe and dividing pipe for R410A are provided specially for REFNET piping. Since these new parts are not interchangeable with current REFNET parts, do not use current REFNET piping materials for R410A. (Refer to the option list)

Other refrigerant piping materials

■ Use C1220 type copper tube for refrigerant piping. Wall thickness of copper tube shown in the below table can be applied. (The table is same as the recommendation for R22)

Recommendable oil for pipe processing

DAAPHNE MASTER DRAW 510L S-530L S565NR-566L S (Idemitsu Kosan Co.,L td.)
MASTER DRAW 5128 (ETNA PRODUCTS INC.)
Shell Drawing XA (SHELL)

* Mxing amount of oil is 30 mg/10m at maximum.

Wall thickness of refrigerant pipe

Type	O type				1/ 2H type										
Copper tube O.D.	φ 6.4	φ 9.5	φ 12.7	φ 15.9	φ 19.1	φ 22.2	φ 25.4	φ 28.6	φ 31.8	φ 34.9	φ 38.1	φ 41.3	φ 44.5	φ 50.8	φ 54.1
Copper tube WT. (minimum requirement)	0.40	0.60	0.80	0.99	0.66	0.77	0.88	0.99	1.10	1.21	1.32	1.43	1.54	1.76	1.87

* The table shows the requirements of Japanese High Pressure Gas Control law. The thickness and material shall be selected in accordance with local code.

(Unit : mm)

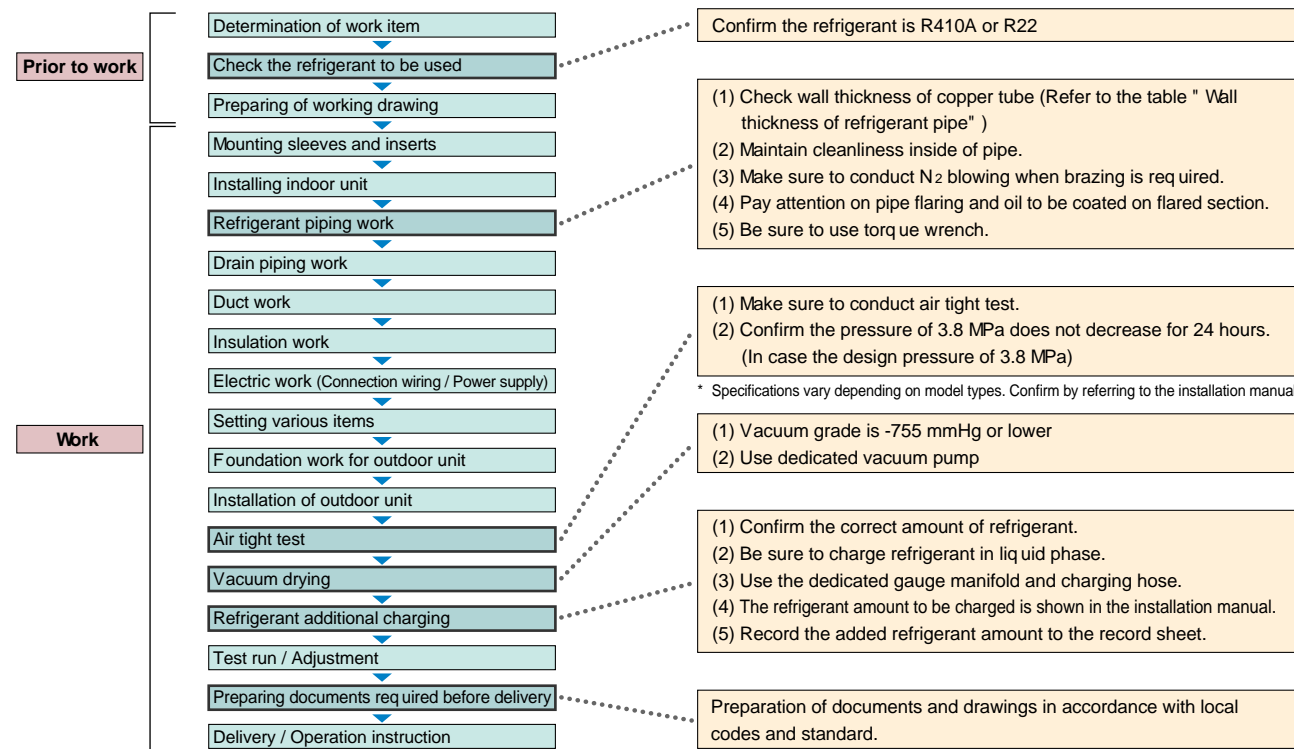
(As of Jan. 2003)

Proc edure and Tools for Refrigerant Piping Work

Proc edure

■ Piping work for R410A model partially differs from R22 model in items and procedures of piping work and refrigerant charging due to different component and higher pressure for R410A. The below chart shows general work procedure for R410A model.

Work items and precautions



Tools

■ Several dedicated tools are required for the installation work of R410A models. Some of conventional tools can be used except tools actually used to the installation work for R22 models.

Representative tools and devices and interchangeability

Tool name	Work process / Usage	Interchangeability with conventional tool
Pipe cutter	Pipe cutting	Interchangeable and can be used.
Flaring tool	Pipe flaring	Dedicated flaring tool is required due to flaring dimension change.
Piping assembling oil (Refrigerant oil)	Applying to flared section	Use dedicated ether oil, ester oil, alkyl-benzene oil or mixture of these oils.
Torque wrench	Flare nut jointing	Dedicated torque wrench is required due to different size of 1/2 " and 5/8" flare nuts.
Pipe expander	Pipe expanding in connection of pipe	Interchangeable and can be used.
Pipe bender	Pipe bending	
Nitrogen	Oxidation proof for inside pipe	
Welder	Pipe brazing	Dedicated gauge manifold and charge hose are required due to high pressure and prevention of introduction of impurities.
Gauge manifold	Refrigerant charging using vacuum and operation check	
Charging hose	From air tight test to refrigerant additional charging	Interchangeable and can be used. (Be strictly sure that oil does not flow in reverse to the unit during pump stop.)
Vacuum pump	Vacuum drying	Previous tool cannot be used due to different refrigerant characteristics. (Measuring instrument must be used.)
Charging cylinder	Refrigerant additional charging	Interchangeable and can be used.
Weighing scale for refrigerant charging		
Gas leakage detector	Gas leakage check	Dedicated detector is required (Use detector for R410A).

Prec autions for Installation Work

Joint brazing

■ Since stricter caution should be necessary for R410A to prevent intrusion of foreign matters into the refrigerant piping line, be sure to conduct N₂ blowing when brazing is required.

■ Other than brazing, a stricter work control including pipe covering and drying is required to prevent pipe from intrusion of foreign matters.

Flaring

■ Make sure to conduct chamfering (filing) at cut section, since a large wall thickness of pipe results large burr. Be aware of no cutting chips left inside pipe.

■ Apply appropriate amount of refrigeration oil on outer / inner surface of flared section to prevent leakage. Make sure to use synthetic oil (ether oil, ester oil, alkyl-benzene oil or mixture of those oils) as refrigeration oil.

Refrigerant charging

■ Charge R410A from service port at liquid side stop valve of outdoor unit in liquid phase. At that time, conduct vacuum drying using vacuum pump.

Air-tightness test

■ Make sure to conduct air-tightness test.



Conduct installation work for R410A model following above mentioned piping work procedure. Otherwise, unit may have trouble. Refer to the "Work execution and control for R410A model" for the details on handling of R410A, installation works and tools.